The Impact of Data Mining on Management and Digital Marketing in the Age of Big Data

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Abstract: The traditional management accounting function is established based on the needs of the internal economic management of economic individuals, mainly through the process of confirming, measuring, recording and summarizing the economic transactions occurring in the enterprise, providing the internal managers of the enterprise with information about economic activities and their results in the form of management accounting reports, and reflecting the business performance of the enterprise. Enterprise managers can make accurate judgments and correct decisions on the development direction of enterprises according to the economic information reflected by management accounting. It should be said that the traditional management accounting function fully meets the needs of internal managers for enterprise economic information. However, in today's society, how to organically combine data mining technology with financial analysis methods, collect and store data, screen and analyze these data, and finally mine useful and valuable business information requires close integration of accounting functions and intelligent learning. This research takes the optimization model of distributed machine learning and deep learning algorithm as the starting point to help the accounting department of enterprises process massive data and quickly process and analyze the rules. The functions of management accounting involved in this model should include forecasting and decision-making, planning and control, analysis and evaluation, which is the functional orientation of management accounting. The experimental results show that the optimized PSO algorithm can provide effective decision support for the management through data mining, decision model and knowledge base establishment, which reflects the functions of management accounting information resource integration and information value reengineering.

Keywords: distributed machine learning; Data mining; Management accounting function; Particle Swarm Optimization; Management and Digital marketing

1   INTRODUCTION

From the perspective of the development of management accounting practice and theoretical technology in China today, the management accounting system in China is relatively backward and urgently needs to be reformed. Because of the special national conditions in China and the fact that there is no identical and applicable management accounting standards for enterprises from beginning to end, as well as the general lack of relevant talents in Chinese enterprises [15]. Therefore, we must further deepen the analysis of the functions and applications of enterprise management accounting. Only by deeply understanding the functions of management accounting in enterprises can we deeply conceive and plan how to make these functions fully play. First of all, we must make clear the function orientation of management accounting, what functions should management accounting play in the process of business activities, and how these functions will be carried out to achieve the objectives of the enterprise?The research on this series of problems can not only promote the coupling effect of intelligent interaction and management accounting functions, but also strengthen the development of relevant management accounting theories to a certain extent.

With the rise of big data, distributed machine learning and other technologies, a variety of distributed machine learning models can better adapt to the relevant needs of financial market time series data research, and become a powerful tool for experts and scholars to study financial market forecasting [4]. The application prospect of distributed machine learning and deep learning models in financial forecasting related fields is very promising [2]. With the promotion of economic globalization and the development of information technology, we can see that the environment faced by traditional management accounting has undergone fundamental changes. The demand for information has changed from the traditional individual demand (to meet the internal needs of enterprises) to the social demand. The government, investors, tax departments, stock exchanges, banks, the public and other organizations and groups all need authentic and reliable management accounting information.

Obviously, especially with the maturity of network information technology, the traditional view of management accounting function has obviously lagged behind the practice of management accounting, so it is necessary to study the management accounting function under the socialization of management accounting information demand [7].

To sum up, in view of the current theoretical development of management accounting functions and their practical application in enterprises, it is urgent for us to solve the problems related to the positioning of management accounting functions, and how these functions should be carried out in enterprises. In other words, we are mainly to answer the questions of "why" and "how".

2   RELATED WORKS

According to the research in literature [25], from the theory and research on management accounting functions that have been formed at present, the research is mainly conducted from three aspects. First of all, from the perspective that management accounting is an enterprise management information system, it is divided into cost determination and cost calculation functions, forecasting functions, decision-making functions, organizational functions, planning functions, control functions, evaluation functions and assessment functions. Secondly, from the perspective that the function of management accounting is based on enterprise value management, it not only covers the traditional accounting function, but also includes the business performance judgment of accounting and other related work. From the defects highlighted by financial management accounting in enterprise operation and management at present, management accounting mainly has the functions of accounting, reflection, supervision, decision-making, planning, prediction, control, organization, assessment and evaluation [18].

Literature [22] mentioned that in western countries, the coupling degree between financial markets and human-computer interaction and other contents is increasing, while domestic research on the ability to predict stock prices and returns through distributed machine learning is not yet mature and perfect. Such research can promote the cross integration of financial field and technical level, and provide new ideas for future stock investment. Management accounting originated from the economic activities in 1920. Up to now, there are great differences in the evaluation or understanding of the real concept of management accounting between China and western countries, but there are also several common aspects. Through the joint research of management accountants, we have come to a definition that people can relatively accept, that is, management accounting is aimed at realizing the enterprise strategy, strengthening the process of internal business and the needs of management, and taking the entire business activities of the enterprise as the target. Through the acquisition and further processing of adoption information and other information, it is a branch of management accounting that can predict, make decisions, organize, supervise, assess and evaluate the business process of an enterprise.

The literature [12] shows that the connotation of management accounting lies in the management before management accounting, and management accounting is only a means of implementing management. Therefore, the function of management accounting should be considered from the perspective of the enterprise as a whole, not only accounting and supervision of the past, but also control of the present. According to the literature [3], the function of management accounting in planning for future development refers to the role that management accounting plays in the process of implementation. Relevant foreign scholars and experts will never discuss the significance of the so-called management accounting function. They focus on the purpose of implementing management accounting in enterprises. Literature [14] introduced data mining technology into management accounting decision support system based on data warehouse, and discussed the feasibility of data mining tools for management accounting decision support. When discussing the future management accounting computerization technology, it analyzed the penetration of data mining technology into management information system [21-11].

Literature [13] attempts to introduce data mining technology into the customer profit contribution evaluation method to improve the operability of the evaluation. Literature [8] holds that data mining is an important aspect of the utilization of strategic management accounting information resources in the article of value stream based strategic management accounting, and a value stream based data warehouse should be established to meet the needs of strategic management accounting decisions. According to literature [6-5], the coupling point between the value of data finance and the application of enterprise accounting management lies in cost and value chain mining, forecasting analysis, customer relationship management, product and market analysis, financial risk analysis, etc., but there is no specific analysis of relevant content. In the construction of integrated cost management system based on value creation, literature [19-10] believed that the application of artificial intelligence, knowledge discovery and data mining technologies should be paid special attention.

In February 1981, the name "management accounting management" was first proposed in the Minutes of the National Management Accounting Work Conference issued by the Ministry of Finance. Document [20] On "Management Accounting Management": Management accounting, a social phenomenon, belongs to the category of management and is a kind of human management activity. The function of management accounting is always realized through various forms of management activities that management accountants engage in. Literature [1-16] advocates the use of the concept of "management accounting management" in China to highlight the value of Marx's economic theory.

On Management Accounting is the Main Component of Economic Management: Management accounting is the core of business management, an active behavior that reflects and controls

economic activities and enables them to achieve certain goals, and an organized management activity with management functions [24]. In order to achieve the goal of creating organizational value, management accounting needs to constantly innovate and develop its own business management. The business activities of each organization are a system, which starts with some innovative management such as market and R&D, and ends with customer management such as after-sales service, forming a complete value chain within the enterprise. Therefore, from the perspective of enterprise value, the functions of management accounting in literature [9-23] are positioned in the following two aspects: first, information support system, which provides an information platform for enterprise value analysis and driver decision-making; The second is the management adjustment system, which plans and adjusts the business process of the enterprise based on the value driven factors.

To sum up, we must further deepen the analysis of the functions and applications of enterprise management accounting. Only by deeply understanding the functions of management accounting in the enterprise, can we deeply conceive and plan how to give full play to some functions.

3   PARTICLE SWARM OPTIMIZATION

At the intersection of particle swarm optimization and management accounting functions, it is necessary to calculate the frequency of eigenvectors. To obtain the likelihood probability, it is necessary to obtain a set of items of known classification, and obtain a posterior probability set through the statistics of this set:

$$\left\{P\left(a_1 \mid y_1\right), P\left(a_2 \mid y_2\right), \ldots, P\left(a_m \mid y_1\right); P\left(a_1 \mid y_2\right), P\left(a_2 \mid y_2\right), \ldots, P\left(a_m \mid y_n\right); \ldots; P\left(a_1 \mid y_n\right), P\left(a_2 \mid y_n\right), \ldots, P\left(a_m \mid y_n\right)\right\} \tag{1}$$

Since each component of the eigenvector is independent of each other, the Bayesian theorem can be used to make the following deductions:

$$P\left(y_i \mid x\right) = \frac{P\left(x \mid y_i\right)P\left(y_i\right)}{P(x)} = \frac{P\left(y_i\right)\prod_{j=1}^{m} P\left(a_j \mid y_i\right)}{P(x)} \tag{2}$$

$$\max_{\alpha} \sum_{i=1}^{n} \alpha_i - \frac{1}{2}\sum_{i,j=1}^{n} \alpha_i \alpha_j y_i y_j x_i^{\mathrm{T}} x_j$$

$$s.t. 0 \le \alpha_i \le C$$

$$\sum_{i=1}^{n} \alpha_i y_i = 0 \quad (i = 1, \ldots, n) \tag{3}$$

Through vectors of unknown category attributes, we can use the following decision functions to distinguish:

$$f(x) = \mathrm{sgn}(w \cdot x + b) = \mathrm{sgn}\left(\sum_{i=1}^{n} \alpha_i y_i \left(x_i \cdot x\right) + b\right) \tag{4}$$

Because it is difficult to solve optimization problems in maximum interval method, there is no mainstream method to solve linear separable problems. In order to simplify the solving process of

linear separable problems, the dual problem of optimization problems in the maximum interval method can be solved, as follows:

$$\min_{\alpha} \frac{1}{2} \sum_{i=1}^{l} \sum_{j=1}^{l} y_i y_j \alpha_i \alpha_j \left(x_i \cdot x_j \right) - \sum_{j=1}^{l} \alpha_j$$

$$s.t. \sum_{i=1}^{l} y_i \alpha_i = 0$$

$$\alpha_i \geq 0, i = 1, \ldots, l \tag{5}$$

Similarly, similar to the linear separable problem in the previous section, the generalized maximum interval method requires that the optimization problem of the solution is more complex and difficult to solve, so the approximate linear separable problem can also be solved by solving a simpler dual problem. The dual problem of the generalized maximum interval method for solving optimization problems is:

$$\min_{\alpha} \frac{1}{2} \sum_{i=1}^{l} \sum_{j=1}^{l} y_i y_j \alpha_i \alpha_j \left(x_i \cdot y_1 \right) - \sum_{j=1}^{l} \alpha_j$$

$$s.t. \sum_{i=1}^{l} y_i \alpha_i = 0$$

$$0 \leq \alpha_i \leq C, i = 1, \ldots, l \tag{6}$$

4 METHODS

4.1 Data Selection

In order to avoid cognitive bias caused by the author's supervisor, the research of this paper tries to make clear and definite measurements of key constructs, so as to achieve clear definition in the later data analysis process. Based on the research theme of this paper, we analyze the management accounting functions of enterprises from three dimensions, namely, establish the ex ante function measurement, in-process function measurement and ex post function measurement. Next, this paper will systematically elaborate the construct measures in these aspects. The schematic diagram of SVM is shown in Figure 1.
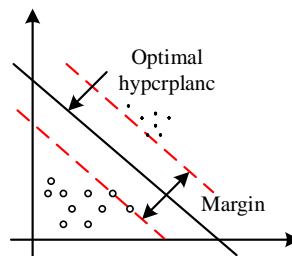

Figure 1: Schematic Diagram of SVM.

Decision making is the choice of an enterprise in a specific management situation, which is to achieve a certain management goal. Because there are many alternatives, enterprises need to judge the above alternatives according to certain standards to make the best choice. The decision involves the comparison of different schemes. In most management scenarios, luck is not easy, and many subjective or objective factors will affect this process. Therefore, the decision-making function lies in how to overcome the above interference factors and guide enterprise managers to make correct decisions. The accounting function is intended for general management accounting. Specifically, it refers to the use of relevant methods and techniques and the compliance with the standard process after recognition, accounting, storage and reporting. The currency is the main unit of measurement and basis. The value scale reflects the capital activities generated or realized by the enterprise, and provides reliable management accounting information for economic management. The specific process of TPSO-SVM algorithm is shown in Figure 2.
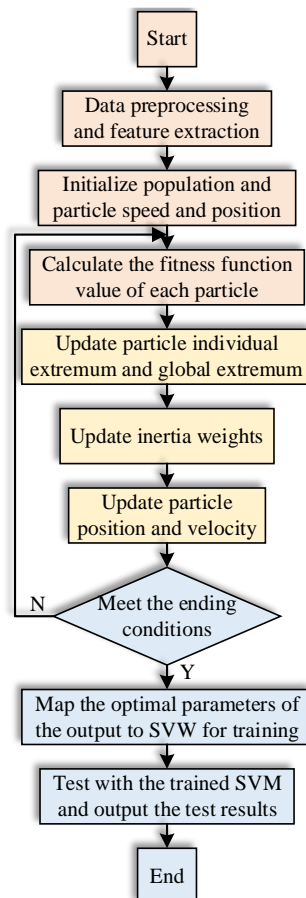

Figure 2: Optimization of SVM model based on TPSO algorithm.

4.2 Research Assumptions

We further divide the ex ante function, in-process function and ex post function, among which the ex ante function can be analyzed from three aspects: forecasting function, decision-making function

and planning function. The function in the matter can be analyzed from three aspects: organization function, control function and supervision function. The post event function can be analyzed from three aspects: accounting function, analysis function and assessment function. According to the above division, the items in each construction item library are coded in three levels according to the measurement variables. In this paper, the coding entries with two different coders in the above two-level coding library will be deleted during the coding of this part, that is, the three-level coding will be performed in 140 valid two-level coding entries, as shown in Table 1.

Coding result of coder A											
Construct			Ex ante function			Function in the matter			Ex post facto function			Coding results of coder B
			Forecast function	Decision making function	Planning function	Organizational functions	Control functions	Supervisory functions	Accounting function	Analysis function	Assessment function	
Coding result of coder B	Ex ante function	Forecast function	12	1	2	0	0	0	0	0	0	15
		Decision making function	2	11	2	0	0	0	0	0	0	15
		Planning function	0	1	12	2	0	0	0	0	0	15
	Function in the matter	Organizational functions	1	0	0	6	2	2	0	0	0	11
		Control functions	0	0	0	2	11	3	2	0	0	18
		Supervisory functions	0	2	0	3	9	3	2	0	0	19
	Ex post facto function	Accounting function	0	1	0	0	1	0	7	0	0	9
		Analysis function	0	0	0	0	0	2	1	14	3	20
		Assessment function	0	0	0	0	0	0	2	1	15	18
Total coding results of coder A			15	16	16	13	23	10	14	15	18	140

Table 1: Error Matrix of Level 3 Coding Results.

As a core and part of corporate management, management accounting has always played a very important and positive role. The application of enterprise management accounting has gone beyond simply imitating the existing theories and methods abroad, and has made appropriate innovation in combination with its own situation, which is more flexible and innovative. The company has set up management accounting posts according to various management needs, which are also called management sections. After more than 10 years of development, the function of management accounting has been continuously strengthened, mainly by refining the work of different posts in the management accounting department to achieve the functions that management accounting should have. Based on this, we will position the function of management accounting by summarizing and analyzing the main work contents of different posts. The process of this method is shown in the figure, which mainly includes five steps: training data collection, location data consolidation, primary location based on the location of the main service cell of the mobile terminal, secondary location based on the and tertiary location. This optimization idea system combines the advantages of the traditional method based on and the location method based on the nearest neighbor method, and improves on both, as shown in Figure 3.
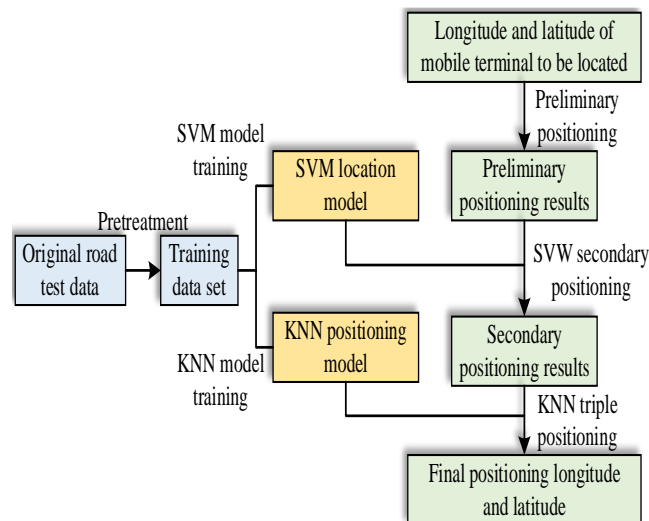

Figure 3: Optimization of three-stage positioning process based on SVM algorithm and K-nearest neighbor algorithm.

Management is both scientific and artistic. Hard data cannot solve all problems. The task of data mining is to extract simplified decision rules from data, or compare different decision schemes according to data characteristics. Data mining is only a technical means in the implementation of strategic management accounting, and strategic management accounting needs its own theoretical system to guide practice. Therefore, how to implement or use strategic management accounting based on data mining technology is a problem to be studied. Its flow chart is shown in Figure 4.

And with the development of the algorithm, target tracking has developed from the original template matching, particle filtering and so on to the current target tracking algorithm based on distributed machine learning. Figure 5 shows the optimization mode of support vector machine for this model.
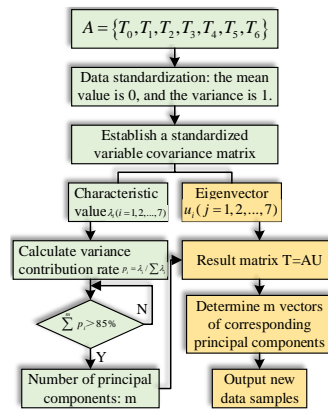
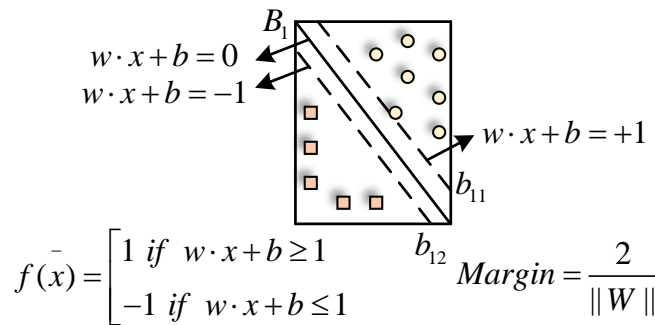**Figure 4:** Principal Component Analysis Flow Chart.

Figure 5: Optimization diagram of support vector machine model.

Fundamentally speaking, human demand for management accounting information has led to the emergence and development of management accounting activities. The discussion on the function of management accounting must also start from this basic point. Management accounting has a long history of development and change. People's demand for management accounting information changes with the development of economic activities. People's demand for management accounting information is different in different times. It includes different demanders of management accounting, different demands for management accounting information, and different working methods of management accounting. Of course, both the ancient management accounting and today's traditional management accounting are the results of people's needs. Due to the different needs of people for management accounting information in different historical periods, management accounting functions have different contents in different historical periods. In other words, management accounting functions vary with different demanders of management accounting information and different information requirements.

To sum up, only by defining the objectives to be achieved, can we clarify how to implement, that is, only by analyzing the path can we effectively play the role of management accounting.

5   CASE STUDY

5.1   Realization Path Of Management Accounting Function

When referring to the analysis function of management accounting, it often refers to the deeper analysis of management accounting data. Here, it not only refers to the analysis of management accounting information by management accounting, but also includes the analysis of management accounting data by financial management accounting. In this sense, the analysis function is a scientific requirement for management accounting to reflect information, and a higher requirement for management accounting to reflect function. Although the analysis function is a derivative function of the management accounting record and reflection function, emphasizing the analysis function of management accounting can improve the work level and quality of management accounting, enhance the role of management accounting, and management accounting information. Although a lot of management accounting analysis methods are mentioned in many management accounting works, such as comparative analysis, ratio analysis, dynamic analysis, factor analysis, balance analysis, structural analysis, chart analysis, linear programming and matrix analysis. However, compared with the extremely rich and available methods that can be provided by the contemporary highly developed mathematical science, these methods are still used too little. Management accounting and mathematics (and statistics) both originated from the original measurement, but the development of mathematical theory analysis level and mathematical logic method far exceeds management accounting. Compared with other economic disciplines such as economics, statistics and management, the level and ability of using mathematical methods for analysis and research in management accounting are far behind. We hope that we can make more use of mathematical methods in management accounting, study management accounting theory, analyze management accounting data, make management accounting more scientific, and improve the working ability and level of management accounting. This is also an important mission of management accounting informatization. The design of the experimental classification method in this paper is to use PSO. SVM as the classifier and iteratively train the network to predict the sample output. In the early stage of data processing, PCA is used to extract the principal components, and PSO.SVM algorithm is used to obtain the classifier output to identify the categories of leaf images. The experimental flow chart is shown in Figure 6.
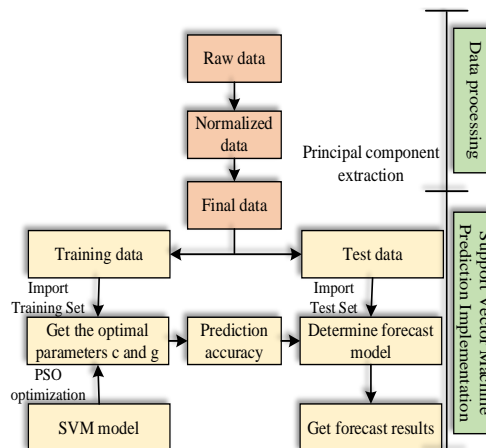

Figure 6: Experimental Flow Chart.

In addition, Table 2 shows the constructs, measure variables, keywords and the final effective coding quantity involved in the above coding process.

Construct	Functional variables	Function keywords	Subtotal
Ex ante function	Forecast function	Presumption, determination, speculation	13
	Decision making function	Decisions, strategies, strategies	12
	Planning function	Planning, budget, planning and design	13
Function in the matter	Organizational functions	Structure, leadership, implementation and structure	7
	Control functions	Control, mastery, manipulation and control	14
	Supervisory functions	Monitoring, supervision, management and tracking	10
Ex post facto function	Accounting function	Reflection, check, calculation and statistics	7
	Analysis function	Financial report, balanced scorecard, calculation, investigation	15
	Assessment function	Evaluation	16

Table 2: Statistics of coding entries of related constructs, measurement variables and keywords.

Management accounting is such a specific economic information service system. On the one hand, it collects and processes information from various business and management activities; At the same time, it also provides management accounting information to some departments that need management accounting information. Figure 7 illustrates the position and status of management accounting in enterprise operation and management activities, and describes the information contact between various activities and management accounting.
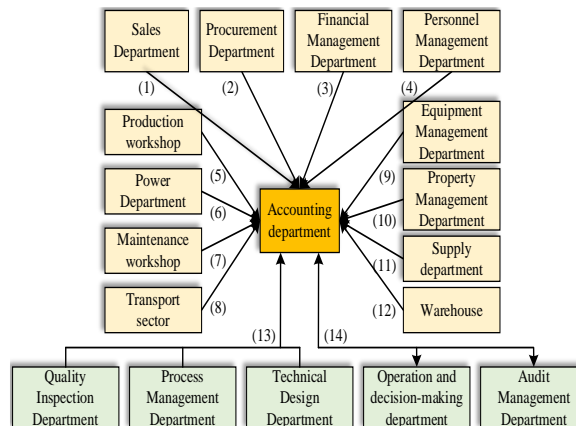

Figure 7: Position and information connection of management accounting in enterprise operation and management activities.

For 40 leaves, 14 attributes (excluding category and specimen number) of each leaf are clustered by principal component analysis. The characteristic values, contribution rates and cumulative contribution rates obtained from the analysis results are shown in Table 3.

Component	Characteristic value	Variance contribution rate%	Cumulative contribution rate%
1	5.681	40.594	40.594
2	4.193	29.961	70.555
3	2.105	15.013	85.567
4	0.738	5.262	90.821
5	0.436	3.128	93.97
6	0.387	2.777	96.725
7	0.173	1.222	97.97
8	0.111	0.811	98.765
9	0.071	0.522	99.285
10	0.044	0.326	99.613
11	0.027	0.178	99.785
12	0.016	0.123	99.914
13	0.014	0.089	99.999
14	0	0.004	100

Table 3: Variance and contribution rate of each principal component.

By applying data mining technology under the big data platform, strategic management accounting can provide useful information for enterprise decision-making in a more refined and efficient way. As far as strategic management accounting is concerned, the application of data mining technology can provide more possibilities for enterprises to rationally allocate resources, optimize decision-making and predict, make decisions, plan, control and assess current and future economic activities. The prediction performance of SVR model depends on these parameters. The specific process of the ISOA-SVR prediction model is shown in Figure 8.
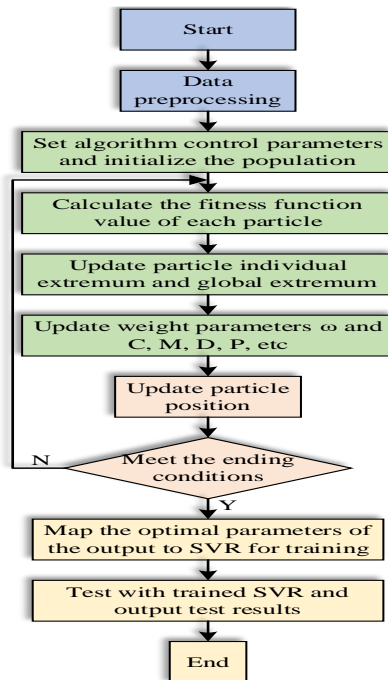
Figure 8 : Optimization flow chart of SVR model based on ISOA algorithm.

Table 4 shows the increase of the merging time interval of the data to be located, the positioning accuracy will experience a gradual increase, and then slowly decline after reaching the peak value, while the positioning speed will become faster and faster with the increase of the merging time interval.

Merge Interval	Nothing	1s	2s	3s	4s	5s
Positioning accuracy	71.93%	80.32%	81.32%	82.00%	83.28%	83.99%
Positioning time	54.22s	16.22s	11.32s	7.59s	5.29s	3.99s
Merge Interval	6s	7s	8s	9s	10s	
Positioning accuracy	72.92%	87.23%	86.33%	87.58%	84.32%	
Positioning time	4.39s	3.99s	2.82s	2.64s	2.01s	

Table 4: Simulation results of data to be located.

The theory of distributed machine learning has been widely applied to many fields, from data mining programs for fraud detection of bank credit card transactions, to intelligent voice automatic recognition programs, to automatic image retrieval programs on the Internet, to automatic target recognition and tracking programs in image processing, all of which involve the important discipline of distributed machine learning, its application scope is more and more extensive. More and more scholars have devoted themselves to the research of distributed machine learning. The specific process of TPSO-SVM algorithm is shown in Figure 9.
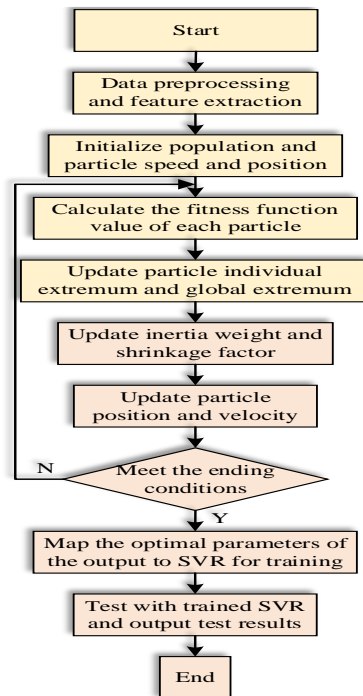

Figure 9: Optimization flow chart of SVM model based on IPSO algorithm.

5.2 Implementation Path of Analysis and Evaluation Function

First of all, from a global perspective, the realization of management accounting functions should follow the sequence of the actual management needs of the enterprise. Generally, the enterprise management will not perform the balanced scorecard assessment without budget management. In other words, the first thing is to plan and control the enterprise's operation and management, and then based on this, analysis and evaluation can be carried out. Or it is also impossible to predict and make decisions on access costs after the balanced scorecard evaluation has been implemented. Because only after the cost is predicted and decided, the budget management is used to plan and control the cost, and finally the difference between the actual amount and the budget amount is analyzed and evaluated. In other words, there is a certain time sequence in the realization of the management accounting. In terms of benefits, after using data mining technology, the system can mine data resources at a deeper level, improve the utilization of data and create value for enterprises.

In terms of cost, the data mining is built on the original information system of the enterprise. Its realization is that the system automatically collects and collates all aspects of resources,

especially the effective use of Web resources, with low cost and high income. The way to realize the function of prediction and decision-making is to first define the object, analyze its motivation, and then propose a variety of possible plans for the prediction of production and operation activities of enterprises, and then select the best plan and implement it. Finally, feedback the information obtained. The specific implementation path is shown in Figure 10.
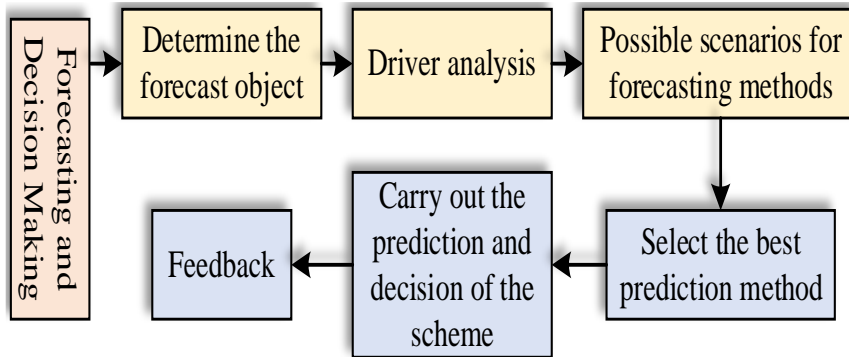

Figure 10: Implementation Path of Prediction and Decision Making Functions.

The planning and control function of management accounting is to use certain management means to plan the actual economic activities of the company, and exert certain influence on its process, so that it can be carried out according to the planned management objectives. In fact, the planning company's management accounting and control functions are realized by adopting comprehensive budget management. Both the starting point and the end point of budget management are attributed to profits, which is an innovation based on traditional enterprise budget management. In fact, the key to the realization of the planning and control functions of management accounting lies in the powerful implementation of the budget. Accurate and reasonable budget itself cannot improve of enterprises and achieve the purpose of improving the operating efficiency of enterprises. Only by strictly implementing the budget and combining each business with the corresponding budget, can the planning and control functions of management accounting be truly realized. The planning and control functions of management accounting are mainly realized through the budget management system, and the specific implementation approach is shown in Figure 11.
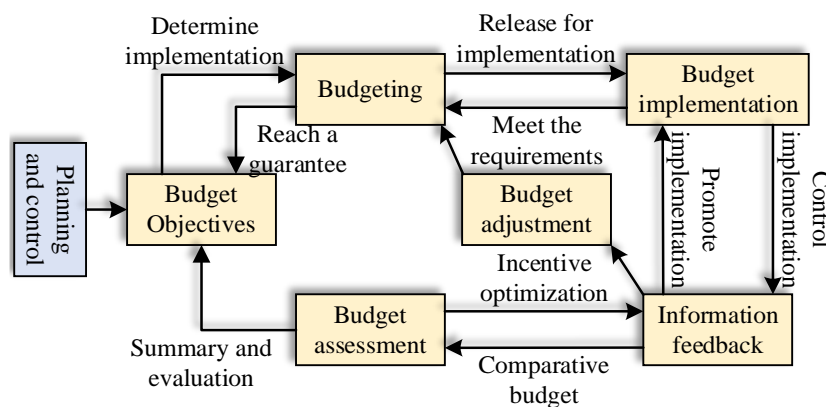

Figure 11: Implementation Path of Planning and Control Functions.

The analysis and evaluation function of management accounting mainly refers to the process of assessing and evaluating the responsibilities of the responsible units within the enterprise. Based on the above discussion, we describe the realization of the analysis and evaluation function of management accounting as Figure 12.
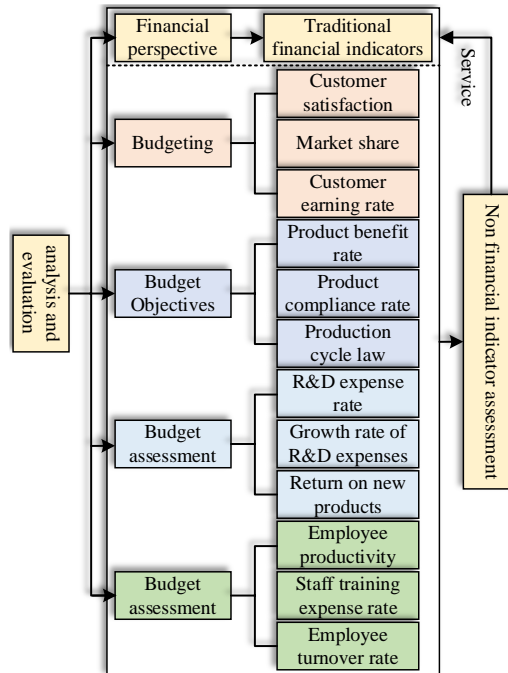

Figure 12: Analysis and Evaluation Function Implementation Path.

In order to prove that the method has good prediction effect, support vector machine optimized by genetic algorithm and grid search method is also used to predict leaves by classification. The optimal parameters and classification errors obtained are shown in Table 5.

Optimization algorithm	C value	δ value	Best cross validation accuracy	Classification accuracy
Particle Swarm Optimization	50.7533	1.18074	77.67%	94.1177% (320/340)
Genetic algorithm	1.18074	1.2947	78.26%	93.5292% (318/340)
Grid search method	16	1.41423	75.86%	91.4708% (311/340)

Table 5: Results of Support Vector Machines Optimized by Various Algorithms.

Management accounting is based on the study of economic activity information of business organizations and reflects the possible information of future economic activities of business organizations, such as cost analysis, investment analysis, budget analysis and management, analysis of new product development, analysis of business benefits, analysis of profits, etc. In a certain sense, financial management accounting is the basic source of information of management accounting, because the data on which management accounting is based for analysis mainly comes from the records of financial management accounting. However, in reality, management accounting, which should play an important role, is not playing an ideal role. In fact, the boundaries between management accounting and financial management, economic activity analysis, value engineering and many other theories are not very clear.

To sum up, the basic function of management accounting is to record economic activities, and reflecting economic activities is a derivative function of the basic function of management accounting records. Although reflecting economic activities is a derivative function of the basic function of management accounting records, it is a very important function, which is more necessary for production activity management and economic activity management. It still needs some sufficient conditions to give full play to the functions of management accounting. Now some are considered as the functions of management accounting, which should be the conditions to give full play to the basic functions of management accounting.

6 CONCLUSION

In recent years, the function of management accounting has greatly enriched the two basic functions of traditional management accounting: reflection and supervision, comprehensively performed a wider range of functions, and separated some new management functions from the two basic functions of financial management accounting. This paper discusses the framework of strategic management accounting system based on data mining, including the construction goal, overall structure, implementation process and implementation guarantee, which provides ideas for the application of data mining in strategic management accounting. In this study, we created an optimization algorithm model to expand the functions of management accounting, reformed the traditional management accounting information production model, integrated the original management accounting system, proposed a new management accounting information production model, and more clearly defined the realization path of management accounting functions and the internal logical relationship of management accounting function positioning. The experimental results prove that the selected optimization model can create the optimal path of the management accounting function. On the premise of clarifying the cost object and its complexity, it analyzes the cost driver, proposes various possible enterprise activity cost control schemes, and uses a series of methods such as variable cost method and cost volume profit analysis to select the optimal scheme. The analysis accuracy is higher than 92%.

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