Decision Support System for Economic Management of Large Enterprises Based on Artificial Intelligence

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In order to improve the economic management effect of large enterprises, a decision support system for economic management of large enterprises based on artificial intelligence is designed. The system hardware and software are designed, respectively. The system hardware consists of basic information module, business management module, personnel management module, salary and welfare management module, system management module, and database module. With the support of artificial intelligence technology, build a BP neural network model, and the model was trained, through continuous learning rate adjustment; in the process of training error lower sales forecast results, according to the result of prediction in enterprise comprehensive benefit maximization as the goal, set up large enterprises economic management decision-making model, large enterprise economic management decision-making algorithm design. The test results show that the system has good fault tolerance, reliability, robustness, and high efficiency, the system response time is short, the decision accuracy is high, and the practical application effect is good.

1. Introduction

The rapid development of market economy makes the management decision of modern enterprises more and more complicated. It is difficult for an enterprise to make the best decision for operation in the complex market based on its past experience or some prescriptive policies [1, 2]. The use of electronic computer, a modern tool, can quickly process a large amount of data, can make thousands of logical judgments instantly, provide enterprises with more and better alternative management and operation programs, and assist managers to make scientific and feasible decisions, so as to improve the modernization level of enterprise management [3–5]. The design of decision support system for enterprise management is based on this purpose, providing enterprises with a computer intelligent management system to assist senior managers to make the best decision in enterprise management. Economic management decision support system improves and enhances the efficiency of enterprise management and the efficiency of enterprise operation by combining economic theory, modern economic management methods, computer technology, and artificial intelligence. Therefore, it is of great significance to make economic management decisions of large enterprises.

For the design of decision support system for large enterprises’ economic management, some excellent research results have emerged in related fields. For example, reference [6] has designed a decision support system for enterprises’ economic management based on big data. Based on the analysis of large data oriented decision support system for the management of large enterprise economic system, on the basis of the major advantages of the proposed enterprise relying on big data to construct the concrete strategy of enterprise decision support system for the management of the economy, including the business layer, network layer, and data layer, policymakers aim to enhance its decision support efficiency for the enterprise and improve enterprise economic management level. However, the system does not focus on the design of decision algorithm, resulting in the decrease of decision accuracy. In order to solve all kinds of decision-making problems in the production management of edible fungus enterprises, the production management decision
support system of edible fungus enterprises was designed. The unified management of production management information was carried out through the edible fungus data warehouse, and the massive data was analyzed and made by knowledge reasoning. Reference [7] designed a decision support system for production management of edible fungus enterprises. In order to solve all kinds of decision-making problems in the production management of edible fungus enterprises, the production management decision support system of edible fungus enterprises is designed. The unified management of production management information is carried out through the edible fungus data warehouse, and the massive data is analyzed and made by knowledge reasoning. However, the system has the problem of long response time, and the practical application effect is not good. Reference [8] proposed a kind of enterprise economic management decision support system based on in-depth data mining. Based on the present situation of informatization of manufacturing enterprises, to research the composition of the decision support system and the design for the development and production management decision support system, through the data resources integration, deep mining and processing methods, to promote collaborative application of all kinds of information, provide the support for enterprises to carry out production decision and provide reference for subsequent enterprises to promote informatization construction. However, the system focuses on software design, resulting in a long response time after the system application.

So, in order to effectively address this problem, this paper designed a decision support system for economic management of large enterprises based on artificial intelligence, conducted on the system hardware and software design, including software design part that uses the artificial intelligence technology, to build a BP neural network model, and the model was trained, through continuous learning rate adjustment in the training process. The sales prediction results with lower error are obtained. According to the prediction results, the economic management decision model of large enterprises is established to maximize the comprehensive benefits of enterprises, and the economic management decision algorithm of large enterprises is designed.

2. Hardware Design of the Economic Management Decision Support System for Large Enterprises

2.1. Basic Information Module. Several modules in this system have similar functions, namely, customer management module, supplier management module, and commodity management module. They are the basic modules in the system, and almost all other modules operate around these modules, but these modules are relatively simple, with only a few basic operations such as insertion, deletion, and modification, and their implementation is basically similar [9, 10]. The module function diagram of the basic information management module is shown in Figure 1.

In customer management, the basic information of customers can be recorded to facilitate future contact and cooperation. In addition to the basic information of the customer or the enterprise, it also provides the overall statistical information of the customer, such as the statistics of the location of the customer and the statistics of the purchase preference of the customer, through which to help the enterprise to screen the customer to a certain extent and provide data support for the future sales work. In the customer management function, the deletion function of customer information is not set, because the customer buys once in time or buys rarely, but it has a good value of analysis and utilization [11]. Through the overall customer information, enterprise managers can better understand the market and make better decisions, so there is no longer a customer deletion function. Only the system administrator can periodically delete customers whose reference value is not high for a long time.

In supplier management, it is mainly used to record the basic information of suppliers. By recording and modifying the basic information of suppliers, enterprises can facilitate contact and cooperation. In addition, suppliers also have statistical information management similar to that of customers, and the basic information of suppliers can provide technical support for the future development of the company. Similar to customer management, supplier management also does not set the function of deleting suppliers, so as to help enterprises master the information of customers and suppliers more comprehensively [12, 13].

In the commodity management function, it is mainly used to record the basic information of commodities and can add, delete, modify, and view operations to help enterprise managers understand the basic situation of commodities.

2.2. Service Management Module. Business management module is mainly to complete the purchase, sales, inventory, customer credit evaluation, and other dynamic information management. Its role in the system is very important, because it can not only provide services for daily production activities, but also provide support for analysis and statistical data [14]. Its functional module diagram is shown in Figure 2.

Purchasing information management is mainly used to dynamically record the purchasing situation of enterprises every day. When purchasing a batch of goods, you will purchase details such as purchase time, procurement, procurement cost, and procurement volume of commodity information record into the system, and when purchasing information, quantity, purchasing, etc. are modified by modifying the purchasing information to modify already generated by the procurement information [15]. Viewing purchase information mainly allows users to understand the purchase situation from multiple angles, such as viewing the purchase information of a supplier to understand the supply situation of a supplier, to vertically understand the supply situation of suppliers. You can also compare the supply of several suppliers to the same product by viewing the purchase situation of a certain product and compare several suppliers horizontally. Before adding purchasing information, if the information of the purchased goods or suppliers
is not recorded in the system, it is necessary to add the information of the goods or suppliers to the system before recording the purchasing information [16, 17].

Sales information management is mainly used to dynamically record the daily sales of enterprises. When a company sells a batch of goods, it stores a specific record of the sale in the system. It is a basic process with procurement information, but it also enables enterprises to understand the sales situation from multiple angles. Before adding the sales situation, the information of commodities and customers should also be entered into the system [18].

Inventory information management is mainly used to record the inventory situation of enterprises. When a new commodity is transported to the warehouse, it is necessary to record the quantity of the commodity, storage time, receiver, etc. Also, when goods go out of the warehouse, it is necessary to record basic information such as the time and quantity of goods going out of the warehouse. The basic information of the warehouse can be modified to some extent to modify the information of commodity storage [19, 20]. Inventory information management also provides the function of viewing; this function is also to provide horizontal and vertical view of the two aspects: horizontal view can be compared with each warehouse of goods out of storage and warehousing, to further macro-grasp the company’s purchase and shipment mechanism. You can also view the goods in and out of a warehouse vertically to understand the goods in a warehouse.

2.3. Personnel Management Module. Because the management function of the system is mainly for the system’s authority to do services, the system’s authority settings are determined by the company’s position information [21]. The system maintenance module is mainly the background open to the system administrator. Through this module, the administrator can modify the basic information of positions and departments. The functional module diagram of personnel management module is shown in Figure 3.

Employee information is mainly used to manage all employee information in the enterprise. At the beginning of system construction, all employee information is established by the system administrator. After the formal operation of the system, each employee can log into the system according to his/her employee ID and maintain his/her basic information. After that, when a new employee enters the enterprise, the department or manager who recruited the employee can establish the basic information of the employee in the system, and the employee can maintain his/her own information after the establishment of the basic information [22].

Because the departments and positions in the enterprise are generally fixed and rarely changed, and the information of positions and departments is closely linked to the authority of the system. So, this is maintained and managed by the system administrator. When each position and department are established, it is necessary to select the operation authority of the system it has [23, 24]. When an employee is promoted or demoted, as long as the position is a position in the system, and the position and department information is modified in its basic information, there is no need to change its operation authority again. Just when the work content of a position or department changes, it is necessary to modify the department and position information, in order to modify its corresponding authority information. The administrator can also delete a position or
department, but before deleting, the system will automatically confirm that no one is in the department or the position; otherwise, the system will give a prompt, indicating that the department or job information cannot be deleted.

2.4. Compensation and Welfare Management Module. The salary and benefits of employees in different departments and positions are different. The system makes the difference by constructing a corresponding database, in which the corresponding salary and benefits standard of each employee will be shown. It contains a number of functions, among which the processing steps of salary information export are as follows:

1. Enter the employee compensation interface, add the search criteria, and then perform the search to obtain the compensation information list.
2. Determine a storage address for saving the export table of salary information search, and the Corresponding Excel file required by the function will be generated under the corresponding address [25].
3. Open the sheet object of the file and read the list of salary information. The result needs to be written into Excel, and the set Cell method is used to realize this function.
4. Close the Excel file immediately after writing the statistical results [26].
5. Generate salary, export Excel, and obtain relevant data. Figure 4 depicts the entire salary information export process.

2.5. System Management Module. After introducing the above business function modules into the system, the information is more comprehensive and confidential. In order to avoid the loss or even maliciously tampering of human resources information, various technical measures are introduced to protect the data of the system and effectively improve the security. This module is designed below.

2.5.1. Data Backup. Information related to enterprise economic management is stored and often used, without which the related work will be seriously affected [27]. In order not to cause the loss of enterprise cost, the data backup function of the system is introduced. By storing all data information of the system in bak file, data loss and other problems can be better handled. The implementation of this function includes the following steps:

First, the backup function of the system is designed to read all data; only system administrators can perform this function.

Second, you need to select the storage address and file name of the bak file for backup [28, 29].

Third, the address of the identified backup file is passed to the data manager class, which calls the backup method to form the SQL statement for backup.

Fourth, build the connection to execute the backup SQL statement, and obtain the corresponding bak file. Figure 5 shows the data backup process.

2.5.2. Data Recovery. If data is lost due to a system fault, start the data recovery process immediately. This section describes how to restore system data by enabling backup files. To restore data updated after the last system backup, the administrator needs to view the database logs one by one for maximum efficiency in handling database faults. This function is implemented as follows:

![Figure 3: Service management module.](image)

![Figure 4: Salary information export function flow.](image)

![Figure 5: Data backup process.](image)
First, the administrator is responsible for database security and can perform data recovery only after confirming the role of the user as the administrator.

Second, select the latest BAK file in the backup library. The system requires that the file type be BAK, and the content in the file is correct. If the file meets the above requirements, data recovery can be performed [30].

Third, a data recovery SQL statement can be formed by passing in the system data management class and calling the Restore method.

Fourth, read the database parameters to get the database connection and use the Execute Update method to execute the restore SQL statement.

Fifth, the data recovery result is displayed on the interface, and the process is finished. Figure 6 shows the whole process of system data recovery.

2.6. Database Module. The E-R diagram is used to roughly understand the table information needed by the system, as well as the relationship between tables [31, 32]. In order to prevent the dependence between tables from being too complex, there is no foreign key constraint between tables in the database, and the foreign key constraint is controlled by the logical access of the program. The specific design of each table is as follows [33].

Customer data sheet records the basic information of customers, among which customer credit rating is used to record the credit rating of customers. Each time payment on time, the credit rating is increased by one; otherwise, it is decreased by one. The specific information of each field is shown in Table 1.

The purchase information sheet is mainly used to record the company’s purchase time, total price, and other information. The specific design table is shown in Table 2.

The sales list is used to record the specific information of product sales. The main fields are the list ID, sales ID, product quantity, and product type. The specific design is shown in Table 3.

After determining the employment relationship with employees, different employees will have different salaries and benefits due to the different nature of their departments and positions, so corresponding databases should be built to distinguish them [34, 35]. For this purpose, the following table is designed, in which the attributes include salary Number, salary Month, and salary Detail. After the attributes are proposed, the corresponding storage mode is set [36]. Table 4 shows the corresponding design results.

### 3. Design of the Economic Management Decision Algorithm for Large Enterprises Based on Artificial Intelligence

This article installs Python 3.6.5 build CentOS 7 environment and complete the setting of software design environment for economic management decision-making software of large enterprises.
BP algorithm was put forward by Rumelhar in 1986. It has strong nonlinear mapping ability and can identify samples containing noise. After learning, the hidden features and rules of samples can be distributed on the connection weights of neural networks, making the algorithm suitable for multilayer networks, so it has been widely used in neural network research. Its structure is shown in Figure 7.

\[ X_0, X_1, \ldots, X_N \] is the input information of the neural network, \( Y_0, Y_1, \ldots, Y_N \) is the output information of the neural network, \( W_{ij} \) is the connection weight between the neurons of the input layer and the neurons of the middle layer, and \( W_{jk} \) is the connection weight between the neurons of the middle layer and the neurons of the output layer.

The training process of the BP neural network is as follows:

1. Initialize the BP neural network and randomly assign the real number between \([-1, 1]\) to each connection weight and threshold.
2. BP neural network randomly selects a group of samples from the sample set to enter the network with input \( X_k = (x_1^k, x_2^k, \ldots, x_n^k) \) and expected output \( Y_k = (y_1^k, y_2^k, \ldots, y_N^k) \).
3. The activation function value \( H_k \) of the hidden unit of the hidden layer is calculated by using the sample input \( X_k = (x_1^k, x_2^k, \ldots, x_n^k) \) and the connection weight value \( W_{ij} \) of the input layer to the hidden layer \( r_j \) and the output threshold value \( Z_k \). The output of each unit of the hidden layer is calculated by using \( H_k \) and the sample input expected output \( Z_k \).
4. Using the output \( H_k \) of each unit of the hidden layer, the weight of each connection between the hidden layer and the output layer is \( V_{jk} \), and the output threshold of each unit of the output layer is \( u_t \), and the activation function value of each unit of the output layer is \( S_k \). Find the resulting output \( P_k \) using \( S_k \) and the sample input expected output.

\[ P_k = f(S_k), \quad t = 1, 2, \ldots, q. \quad (1) \]

Calculate the error \( d^k_t \) between the generated output \( P_k \) and the desired output \( Y_k \):

\[ d^k_t = (y^k_t - P_k)P_k(1 - P_k). \quad (2) \]
The error $d_k^t$ and the unit output $Z_k$ of the hidden layer are used to modify the connection weight $V_{ji}$ from the hidden layer to the output layer and the output threshold $u_i$ of each unit of the output layer to generate new connection weights.

The relative error $e_k^t$ of the hidden layer is calculated using the error $d_k^t$, the unit output $Z_k$, of the hidden layer, and the connection weight $W_{ij}$ from the input layer to the hidden layer.

Using the relative error $e_k^t$ of the hidden layer and the sample input $X_k = (x_k^1, x_k^2, \ldots, x_k^n)$ of the input layer, the connection weights from the input layer to the hidden layer are $W_{ij}$ and the output threshold $r_j$ of each unit of the hidden layer is modified to generate new connection weights.

Continue to randomly select input samples and expected output samples from the data set for BP network training in steps (3)–(7) until all data samples are trained.

New data samples are selected for network training, and the difference between the values given by the network is smaller than the original difference, indicating that the network has been successfully trained and is infinitely close to any unknown nonlinear function model. If the value is not smaller than the value, it indicates that the network is not properly trained.

End of network learning.

The above is the standard BP neural network training process, which also has shortcomings, as follows:

(1) The results are relatively easy to output the local minimum. The standard BP neural network is easy to generate convergence at the local minimum due to repeated failure to find smaller errors, so the global optimal value cannot be obtained. In general, there is only one global minimum in BP neural network, while the local minimum is relatively many, so the network is easy to fall into the local minimum, which requires the initial weight and threshold to have good randomness, which can be achieved by multiple randomness.

(2) The training needs to be carried out for a large number of times, resulting in low learning efficiency, slow convergence speed, and long consumption of time.

(3) The selection of hidden layer lacks the guidance of theory.

(4) During the corresponding training of the network, learning and training new samples may have a serious impact on the weights and thresholds generated by the past samples or even forget the trend of the old samples.

Assume that, in the BP algorithm model, the input of node $i$ is $S_i$, the output of node $i$ is $C_i$, the threshold of node $i$ is $F_i$, the connection weight of node $i$ and node $j$ is $W_{ij}$, the actual output result of node $k$ at the output layer is $Y_k$, and the desired output result of node $k$ at the output layer is $X_k$.

The working process of neurons mainly consists of three steps:

(1) Cumulative input signal and weight.
(2) Subtract the weight from the set threshold.
(3) Pass the result obtained in Step (2) to the corresponding activation function (generally sigmoid function), and output. Then, for node $j$ of the hidden layer, the input of node $j$ is

$$S_j = \sum_i W_{ij}C_i.$$  \hspace{1cm} (3)

The output of node $j$ is

$$C_j = f(S_j - F_j).$$  \hspace{1cm} (4)

The error of each output node is

$$e = \frac{1}{2} \sum_k (X_k - Y_k)^2.$$  \hspace{1cm} (5)

The formula for changing its connection weight is as follows:

$$W_{jk}(m + 1) = W_{jk}(m) + \Delta W_{jk}(m + 1),$$  \hspace{1cm} (6)

where $W_{jk}(m + 1)$ represents the connection weight between node $j$ and node $k$ at time $m + 1$, and $W_{jk}(m)$ represents the connection weight between node $j$ and node $k$ at time $m$. $\Delta W_{jk}(m + 1)$ represents the change of time connection weight from time $m$ to time $m + 1$.

In order to make the BP network converge after training, the connection weight should change along the optimization value, that is, moving along the error gradient transformation direction. Then, the calculation of $\Delta W_{jk}(m + 1)$ is as follows:

$$\Delta W_{jk}(m + 1) = -\eta \frac{\delta e}{\delta W_{jk}}.$$  \hspace{1cm} (7)

where $\eta$ is the learning rate.

Because

$$S_j = \sum_i W_{ij}C_i,$$  \hspace{1cm} (8)

$$\Delta W_{jk}(m + 1) = -\eta \frac{\delta e}{\delta W_{jk}} \times \frac{\delta S_k}{\delta W_{jk}} = -\eta \frac{\delta e}{\delta S_k}.$$  \hspace{1cm} (9)

Make

$$\zeta = \frac{\delta e}{\delta S_k}.$$  \hspace{1cm} (10)

Then,

$$\Delta W_{jk}(m + 1) = \eta \zeta S_j.$$  \hspace{1cm} (11)

Assume that the current error gradient of the $i$-th training course is $f_i$, indicating the recent history of the
direction in which the training error of the \( i \)-th training course has been decreasing.

\[
f_i = \theta f_{i-1} + (1 - \theta) d_{i-1},
\]

(12)

where \( \theta \) is the extra weight of the exponential average of the past derivative, \( 1 - \theta \) is the extra weight of the final derivative, and \( \theta \) is the real number between 0 and 1. These extra weights determine whether the nearest gradient or the past gradient matters more to \( f_i \). \( f_i \) is the direction in which the error decreases most recently. If \( \theta = 0 \), then \( f_i = d_{i-1} \), indicating that the early gradient has no effect on the change of learning rate. If \( \theta = 1 \), so \( f_i = f_{i-1} \), which means that the nearest direction is determined by gradients other than the final gradient, and its value is equal to the exponential average of these derivatives.

When the directions of \( f_i \) and \( d_i \) are the same, it means that the network is reducing the error; that is, the error is changing to the minimum value, and the learning rate of the weight will increase accordingly; when the directions of \( f_i \) and \( d_i \) are opposite, it means that the network is not reducing the error; that is, the error is not changing to the minimum value, and the learning rate of the weight will decrease accordingly. It can also be understood that when the product of \( f_i \) and \( d_i \) is positive, the error is decreasing, and the learning rate of the weight is increased and adjusted. When the product of \( f_i \) and \( d_i \) is negative, the error is not reduced, and the learning rate of the weight is reduced and adjusted. The learning rate can be adjusted as follows:

\[
\eta_i = \begin{cases} 
\eta_{i-1} + k, & E(i) < E(i - 1), \\
\eta_{i-1} \times \delta, & E(i) > E(i - 1), \\
\eta_{i-1}, & E(i) = E(i - 1),
\end{cases}
\]

(13)

where \( E(i) \) is the sum of squares of errors at step \( i \). Generally speaking, \( k \) is 0.1, \( \delta \) is 0.5, and \( \theta \) is 0.7.

The future sales prediction results generated by the trained artificial neural network are analyzed, and relevant auxiliary decision data are output to provide help for decision makers. Aiming at maximizing the comprehensive benefit \( S \), the economic management decision model of large enterprises is established as follows:

\[
\max S = \sum_{j=1}^{m} \left( Y_k \cdot N_j \cdot \sum_{i=1}^{n} w_{ij} k_i \right),
\]

(14)

\[
s.t. \sum_{j=1}^{m} N_j \cdot r_{jp} \leq R_p,
\]

(15)

\[
w_{ij} \geq S_i.
\]

(16)

Among them, \( m \) represents the number of projects that have been preliminarily screened, \( j \) represents the code of each project that can be bid, \( N_j \in [0, 1] \) represents whether to select the \( y \)-th project, 0 represents no selection, and 1 represents selection. \( n \) is the number of evaluation factors of comprehensive income, \( i \) is the serial number of each evaluation factor, \( k_i \) is \( i \) factors of evaluation target weight value, \( w_{ij} \) is \( j \)-th that may bid project \( i \) key elements of profit, \( z_j \) to \( j \) a comprehensive profit of the project, \( I \) is to consider the number of resource type, \( p \) is the serial number of all kinds of enterprise resources, \( R_p \) represents the capacity of the \( p \)-th resource, \( r_{jp} \) represents the amount of the \( p \)-th resource occupied by the \( j \)-th project, and \( S \) represents the minimum value of evaluation factor \( i \) for each project.

4. Experimental Test

Based on the principle that the performance of the test environment should be consistent with the actual application environment of large enterprises, the test environment should be strictly arranged to ensure the accuracy of system performance test results. According to the actual application environment, deploy two servers during the test. The two servers are named host A and host B for database installation and test system deployment, respectively. Find another host, test the user’s various business processes on it, and name it host C. Table 5 describes the software required in each environment.

4.1. System Nonfunctional Requirement Test. It mainly aimed at the nonfunctional requirements of the system, to see whether the system can meet various nonfunctional requirements, such as fault tolerance requirements and reliability requirements. This includes testing for exceptions, performance, and robustness. After the nonfunctional requirements test of the system, it can ensure that the system does not have obvious abnormalities, with good robustness, to ensure the various nonfunctional requirements of the system requirements analysis.

Table 6 shows the relative status of system functional testing.

In the test process for improvement of the system, which is a long-term important work, test results show that the system of fault tolerance, reliability, good robustness, and high efficiency through the test and the function of the system effectively ensure not only each function module in the system, but also further understanding of the requirements to provide a good basis.

4.2. System Response Time Test. In order to further verify the effectiveness of the decision support system for economic management of large enterprises based on artificial intelligence designed in this paper, the response time of three hosts was tested, respectively, and the test results are shown in Table 7.

By analyzing the data in Table 7, it can be seen that the average system response time of host A is 0.46 s, that of host B is 0.64 s, and that of host C is 0.66 s. In general, the response time of the system in this paper is less than 1 s. It shows that the overall operation efficiency of the large-scale enterprise economic management decision support system based on artificial intelligence is higher.

4.3. Decision Accuracy Test. The decision accuracy rate refers to the ratio of the number of decisions made by the system in this paper to the total number of decision events. The
decision accuracy test results of the economic management decision support system of large enterprises based on artificial intelligence are shown in Table 8.

By analyzing the data in Table 8, it can be seen that the average decision accuracy rate of host A is 96.8%, that of host B is 95.9%, and that of host C is 95.7%. In general, the decision accuracy rate of the system in this paper is high, indicating that the system in this paper can make correct economic management decisions.

To sum up, the system has good fault tolerance, reliability, robustness, and efficiency. The response time of the system in this paper is less than 1 s, indicating that the overall operation efficiency of the system is higher. The decision accuracy rate of the system in this paper is always above 95.7%, which shows that the system in this paper can make correct economic management decision better and faster.

5. Conclusion

At present, with the process of global economic integration and the development of information technology, enterprises are facing a more complex living environment than ever before. This is mainly reflected in the customer demand being increasingly personalized, diversified, and popular, and product production tends to be more variable and in small batches; the market competition is increasingly fierce, and customers, competitors, and environment are changing rapidly, and so on. At the same time, with the progress of enterprise information engineering in China, the electronic information of enterprises is increasing in geometric progression. Information user enterprise operation and management in making decisions tend to be flooded by all kinds of different types of information and no decision or choice,
incorrect decisions or choices, all of the modern enterprise management decision brought new challenges, so this paper proposes a large-scale enterprise based on artificial intelligence decision support system for the management of the economy. The test results show that the system has good fault tolerance, reliability, robustness and efficiency, short system response time, high decision accuracy, and good practical application effect. It shows that the system can provide some support for the economic management decision-making of large enterprises and promote the further improvement of the economic management level of enterprises.

Data Availability

The raw data supporting the conclusions of this article will be made available by the author, without undue reservation.

Conflicts of Interest

The author declares that there are no conflicts of interest regarding this work.

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