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Retraction

Retracted: Analysis of Efficiency of Human Resource Management Evaluation Model Based on SOM Neural Network

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and name external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] X. Liu, X. Wang, X. Du, and P. Gu, "Analysis of Efficiency of Human Resource Management Evaluation Model Based on SOM Neural Network," *Security and Communication Networks*, vol. 2022, Article ID 4682868, 12 pages, 2022.

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Research Article

Analysis of Efficiency of Human Resource Management Evaluation Model Based on SOM Neural Network

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The success of human resource management is directly related to whether enterprises can stand in the fierce market competition. In the actual operation of enterprises, the human resource management faces various risks. Here, we take the human resource management evaluation standard as the research object and establish the human resource management benefit evaluation model through a SOM neural network. The training, studying, and testing processes of the model are performed. Besides, the human resource management evaluation system is built on the basis of this model. The evaluation research on the efficiency of human resource management has a good influence in many aspects. Researchers have tried to decipher the "black box" relationship between human resource management and organizational benefits, and an effective human resource management evaluation tool is obtained. This model involves both theoretical construction and empirical research. It is of great significance to summarize the progress and existing problems of current research and abroad and put forward some suggestions for future research.

1. Introduction

Under the joint economic work of the world, competitions between different companies have become more and more obvious. In the actual business process of the company, the degree of dependence on human resources has gradually increased, leading to the problem of various benefit evaluation systems for human resource management [1]. Evaluating efficiency of human resource management has always been a hot and important topic in the field of human resources management. Human resource management efficiency refers to the proportional relationship between the contribution share of human resource management to the benefit of the corresponding organization and the resources consumed by itself [2]. R.S. Schuler proposed an evaluation method for analyzing the benefit contribution of human resource management to organizations. This process should be carried out from two aspects: the evaluation of human-centered results and the evaluation of organization-centered results [3]. Since then, researchers have tried to build a more effective efficiency of human resource management evaluation system. However, there is still no recognized successful efficiency of human resource management evaluation tool. Because of the different perspectives of researchers on the objects of concern and research methods, there are many views in this field. Human resource planning is the process of forecasting the supply and demand of human resources and balancing the supply and demand of employees. It is the premise for the smooth operation of enterprises and the basic guarantee for enterprises to obtain competitiveness. The two are complementary to each other in the development of enterprises [4].

This paper reviews the research on efficiency of human resource management evaluation at home and abroad, analyzes the achievements and shortcomings of related research, and discusses the direction of improvement, in order to provide reference for future research and promote the development of human resource management theory [5].

From the perspective of research methods, the current research on efficiency of human resource management evaluation can be roughly divided into two categories: one is theoretical exploration from a qualitative perspective, and various theoretical models are proposed from different perspectives, which are mainly constructed from single linear, nonlinear, and systematic perspectives. The other type is empirical research from a quantitative perspective according to the relevant theoretical framework [6–9].

Self-organizing map (SOM) neural network generates a low-dimensional and discrete map by learning the data in the input space, which can also be regarded as a dimension reduction algorithm to some extent. SOM is an unsupervised artificial neural network. Different from the normal neural network training based on the reverse transfer of loss function, SOM uses a competitive learning strategy to optimize the network step by step depending on the competition between neurons [10]. It can quickly learn the laws that exist in a set of data, classify them in discrete time, and map high-dimensional data to low-dimensional space one by one. This makes the internal similarity of input data show the feature mapping of spatial neighbors. Through this method, a one-dimensional or two-dimensional discrete graph can be mapped, and its topological structure remains unchanged. SOM is a system unit composed of input and output parts. The first part contains one-dimensional spatial elements of k nodes, and the other part is two-dimensional spatial elements. Node matrix is composed of $M = m_2$ nodes. Yuan is connected by a certain weight [11]. It can be seen that what Dyer, Macduffie, and Becker have in common is that they all think that the influence of human resource management practices on organizational benefits is intuitive and a simple linear causality model, and the latter variable in the model is only influenced by the former variable. However, in reality, the actual situation of enterprises is much more complicated. There are many variables that are influenced by human resource management practices and ultimately affect the performance of enterprises, and these models do not consider the influence of other variables. Therefore, this simple and linear mold is not perfect [12]. Ferris put forward a model of the relationship between human resource management and organizational benefits under the social background. The theory extended the antecedents and added more intermediate influencing variables, which made the process of human resource management practice affecting organizational benefits more complicated. This model starts with organizational culture, which is crucial to the formation and type of human resource management (HRM) system and its influence in the implementation process, and HRM system contributes to organizational benefits through flexibility, employee behavior, and organizational prestige. HRM system can shape the flexibility of the organization, thus improving the efficiency of the organization [13]. SOM neural network is an intelligent neural network, a learning tool without external supervision. Human resources are such resources. When it penetrates deeply into the operation system of the organization, not only can it create value and increase the strength of the enterprise, but also this competitive advantage is difficult to imitate. Therefore, through the establishment of such a model, it is possible to intuitively increase the competitiveness of enterprises in various industries through technical means. When the human sensory organs are stimulated, the brain releases specific neurons to make the human body start to excite. As shown in Figure 1, the network is similar to this mechanism, approaching the output state. The corresponding network structure is applied in this study [14]. Although more and more enterprises realize the importance of human resource management, how to measure the performance of human resource management department has always been a big problem that plagues enterprises. This paper is to establish a model of human resource management benefit evaluation on the basis of SOM neural network, so as to obtain a series of human resource management information.

2. Construction of Evaluation Model

The schematic diagram of the human resource management efficiency evaluation model of SOM neural network is shown in Figure 2.

The following steps are essential to establish the efficiency evaluation model of human resource management based on SOM neural network:

(1) Analyze the data to determine the set of risk elements.

The company can choose suitable human resource benefit factors as the evaluation criteria, as Zheng used the formula in the algorithm of his article [15]:

$$N_{mn} = e^{-(Wm - W_n)^2/2\delta^2}. \quad (1)$$

In the above formula, N_{mn} is the evaluation standard function, and δ is a speed constant in the training process.

(2) Select the input information points of SOM neural network.

When using this model, the validity and accuracy of its predictions will depend on the selected coefficients. When the human resource management benefit is the object, the set of elements determined in the previous period is used to automatically transform the range into a closed interval from 0 to 1. Using normalized calculation method to deal with may cause ambiguity in the result, as Chen used the normalization function formula in his article [16]:

$$P_{mn} = \frac{W_{mn} - W_m}{W_{mn} - W_n}. \quad (2)$$

In the above formula, $W_m = \mathrm{mix}\ (W_{mn})$, $W_n = \max\ (W_{mn})$, and $P_{mn} \in [0,1]$ is the result of normalization function.

(3) Select benefits of SOM neural network.

In this paper, the accuracy of its prediction efficiency is mainly determined by the correctness of the information point selection. There is a direct ratio between the two. If a few information points are selected, the information output by SOM system will be further reduced and the accuracy of the network information will also be reduced.

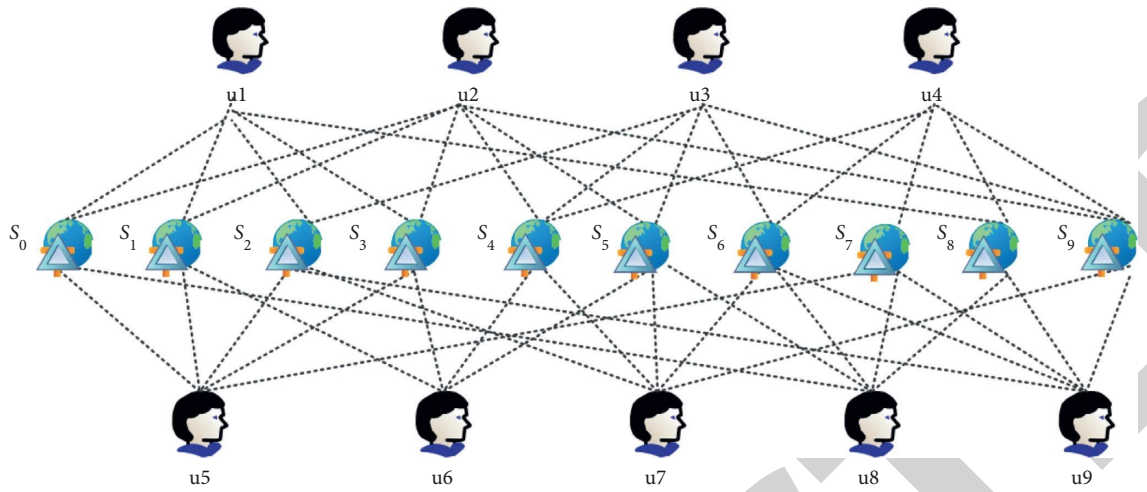

Figure 1: Relationship between human resource management and organizational benefits.

Figure 2: Schematic diagram of the algorithm flow.

Equation (3) represents the criterion for the number of information points obtained in this model.

$$Q = \frac{\sqrt{\sum_{n=1}^{m} (W_m - W_n)}}{P - 1}. \tag{3}$$

In the above equation, Q is the best number of hidden information points, and P is a random constant. The best training time can be obtained by calculation.

(4) Select the output information points of SOM neural network.

The output value of the system can be directly used to evaluate the results of the model. If the evaluation models have different levels, these can be classified into five different levels, namely, Grade I (safest), Grade II (safe), Grade III (basically safe), Grade IV (dangerous), and Grade V (most dangerous). It can be shown by the following formula [17]:

$$H = \sum_{t=1} (j_i - j_t) L(j_i, j_t). \tag{4}$$

In the above formula, H represents the number of information points selected, and j represents the size of the evaluation element.

In the experiment, in order to evaluate the effectiveness of the evaluation method of SOMQP proposed in this paper, we use *WS-Dream* dataset [18], in which two matrices, respectively, contain the response time (RT) and throughput (TP), in which 83.7% of the response time is between [0,1]. Figure 3 shows a clustering process diagram. In fact, many users only select a small number of service systems, so the generated user-service matrix is an augmented matrix. Therefore, we will randomly remove some data and use the rest as a test set. In *WS-Dream* dataset, the proportions of training set are 0.05, 0.1, 0.15, 0.2, and 0.25.

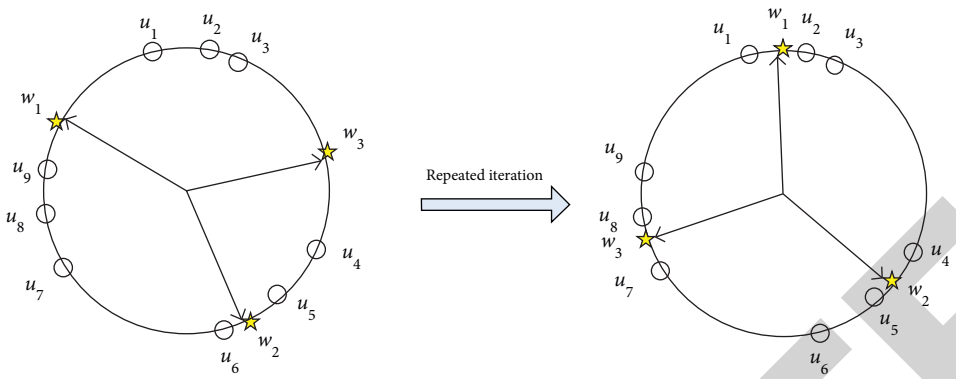

Figure 3: Clustering process.

3. Advantages of SOM Neural Network Evaluation Model over Traditional Evaluation Model

3.1. Traditional Evaluation Model. In the past evaluation practice, the fuzzy comprehensive evaluation method was often used after determining the evaluation index set. The SOM clustering model is a very important category of artificial neural network, which plays an important role in data mining. This model uses a competitive learning strategy to optimize the network to achieve the optimization of the algorithm structure. The next step is to determine the dimensionless characteristic value of each index and the weight of each index relative to the previous index. General expert scoring method is used to determine the weight and then select the comprehensive evaluation model. The general weighted average model was selected, and the corresponding evaluation index was set. Finally, the evaluation result was obtained by summation [19].

However, this method is not suitable for efficiency of human resource management's evaluation. Because efficiency of human resource management is the result of many factors, there is mutual influence among various influencing factors. To truly reflect the efficiency of human resource management, an explicit expression function about the relationship between various influencing factors and results was built with the typical nonlinear system. The SOM neural network, which can effectively solve the dynamic and nonlinear problems in the evaluation process, was unshed in this study as can be seen from Figure 4.

In addition, there are some disadvantages in using expert scoring method to determine the weight of each index. First, the subjective component is big. The rationality of weight determination may be interfered in by external factors. Another disadvantage is that once the weight is determined, it is hard to change. This is not in line with the current changing environment [20].

3.2. Evaluation Method Based on SOM Neural Network. In the mathematical theory of artificial neural networks, the universal approximation theorem points out the ability of artificial neural networks to approximate arbitrary functions. Usually, the neural network referred to by this theorem is a feedforward neural network, and the approximated objective function is usually a continuous function whose input and output are both in Euclidean space. However, there are also studies extending this theorem to other types of neural networks, such as convolutional neural networks, radial basis function networks, or other special neural networks. If only the lowest index, that is, the basic evaluation index, is considered as the input and the middle index is not considered, the whole evaluation system is regarded as a black box, and finally an output, that is, the benefit degree, is obtained. In this way, the whole evaluation system can be regarded as a black box of complex nonlinear functions, which actually has something in common with the mesh evaluation index system, and also conforms to the characteristics that human resource management is a large system with complex mechanism [21].

For example, in the tree-type evaluation index system, we regard "safety accident rate" as a basic index under the improvement index of work and life quality in the "goal achievement degree" subsystem, because the safety of work is one aspect of work quality. But, at the same time, the reduction of safety accident rate may be the result of training or the function of motivation [22]. Figure 5 shows the clustering of input vector neurons with different benefits. Therefore, "safety accident rate" is not only related to the improvement index of work and life quality but also related to the reserved index of human resources.

Based on this black box idea, this paper introduces neural network as the realization model of efficiency of human resource management evaluation system [23]. The system is a multielement network formed by a large number of interconnected neuron units containing simple information. Basically, it can simulate the structure and reaction of human brain nerve. The neural network with highly nonlinear characteristics was built based on an ultra-large-scale self-processing information system. Theoretically, the network space of two levels can be infinitely close to any nonlinear function, so the feedforward neural network can be regarded as an unprecedented powerful learning system. The introduction of neural network provides a new idea for determining the weights of efficiency of human resource management evaluation system, because neural network has many excellent qualities such as adaptive self-organization and being good at making decisions from the approximate uncertain or even contradictory knowledge environment can avoid artificially selecting weights and calculating correlation coefficients.

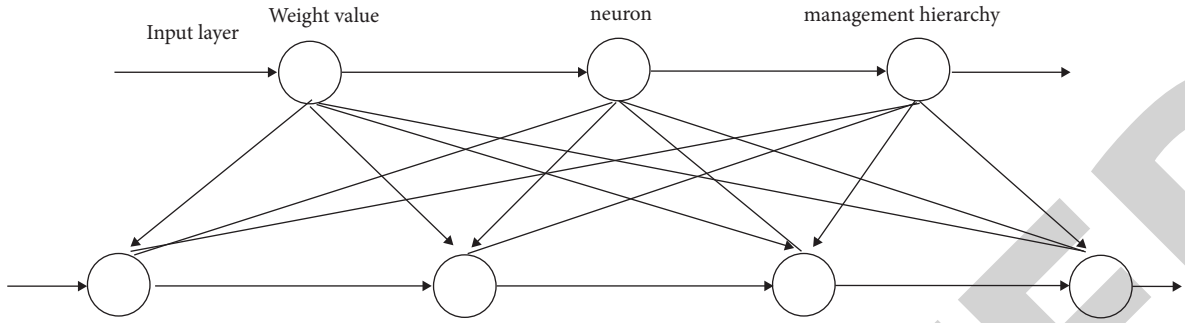

Figure 4: Efficiency of human resource management model based on SOM neural network.

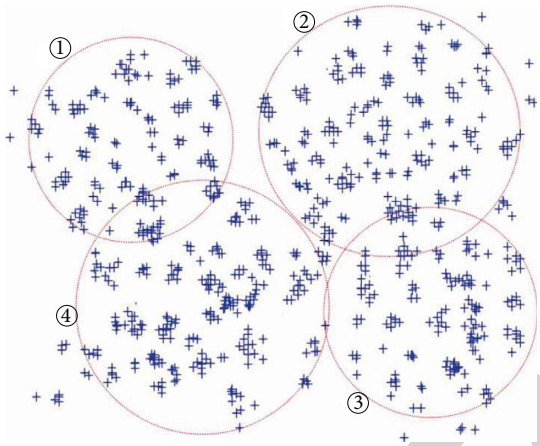

Figure 5: Clustering of input vector neurons with different benefits.

In the neural network, there are many kinds of algorithms. Among them, the SOM network is one of the most widely used. Generally speaking, it consists of two parts: the input layer and the output layer, and the two are completely interconnected. However, the units on the same floor are not connected [24]. The learning process of neural network includes two propagation forms: forward propagation and backward propagation. The former inputs the samples from the input layer after being processed by the hidden layer and then transmitted to the output layer. If the output format does not meet the requirements, it will become another spread. In this process, the error signal propagates from the output layer to the input layer, which will change the connectivity weight of each layer and the bias value of each layer of neurons, so that the error signal will continue to decrease in this process. Figure 6 shows management cluster identification based on self-organizing mapping. After repeated changes, when the error range meets the requirements, the network training process is also over.

3.3. Scope of Application of Two Methods in Internal Control Evaluation. Fuzzy comprehensive evaluation method can be used for comprehensive evaluation of subjective factors as well as objective factors. In the process of internal control evaluation, there are a lot of fuzzy phenomena of evaluation objects, especially in comprehensive evaluation with many subjective factors. Because subjective factors are very fuzzy, using fuzzy comprehensive evaluation can give full play to the advantages of fuzzy methods. However, on the other hand, due to the flexibility of artificial weighting, the weights of evaluation factors are different because of the different focus of evaluators [25]. Due to the subjectivity of human beings, there may be deviations between the determination of weights and objective reality, which may affect the accuracy of evaluation results. It is necessary to form a composite evaluation system with the help of other methods such as SOM neural network evaluation method to correct the defects of single method evaluation and improve the accuracy of internal control evaluation results.

SOM neural network evaluation method has the characteristics of being high-speed self-learning and self-adaptive, fault tolerance, flexibility, and so on, and the system for evaluating information imperfection has more advantages. Figure 7 shows the changes of the two economic benefits with time. When the analysis object of internal control evaluation is fuzzy, incomplete, and uncertain, the sample data can be used for sufficient training and testing, and the evaluation results can be obtained by effective training. However, on the other hand, neural networks often converge slowly, and training takes a lot of time. Because of the complex network structure and algorithm, it is difficult to understand and master, so it has higher requirements on the technical level. Moreover, when there are too many influencing factors and levels of internal control evaluation objects, with the increase of training times, the calculation and storage capacity will increase, and there may be overfitting, so that accurate evaluation results and predicted values cannot be obtained.

It has the advantage of evaluating multilevel complex problems. Fuzzy comprehensive evaluation analyzes complex objects from the perspective of hierarchy. The more complex and hierarchical the structure of the evaluated object is, the better the effect of multilevel fuzzy comprehensive evaluation will be. The result of fuzzy comprehensive evaluation is represented by a fuzzy set, which accurately depicts the fuzzy state of the thing itself. After further processing and giving an appropriate score, an equal score vector can be calculated, which provides a quantitative method for qualitative problems [26].

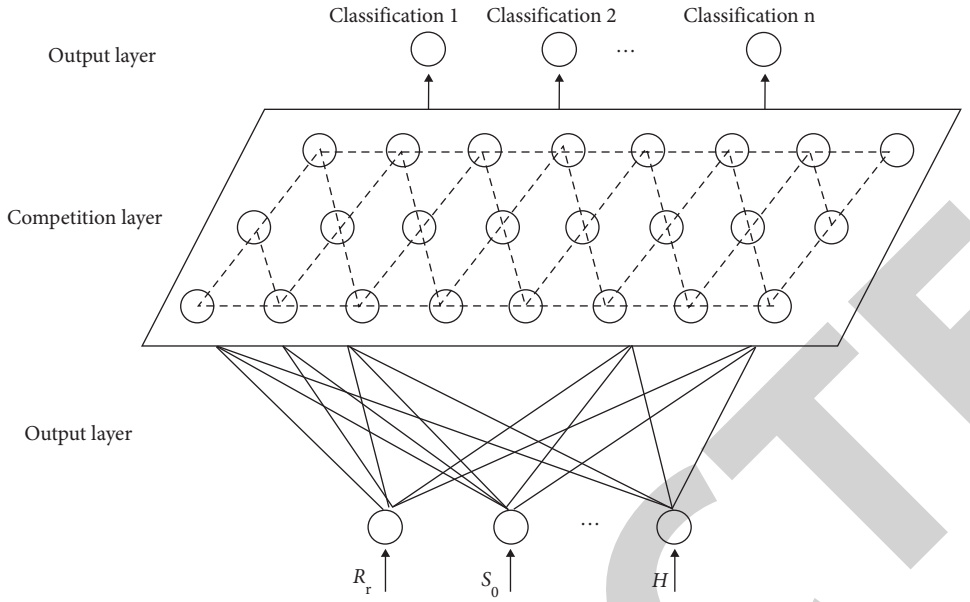

Figure 6: Management cluster identification based on SOM.

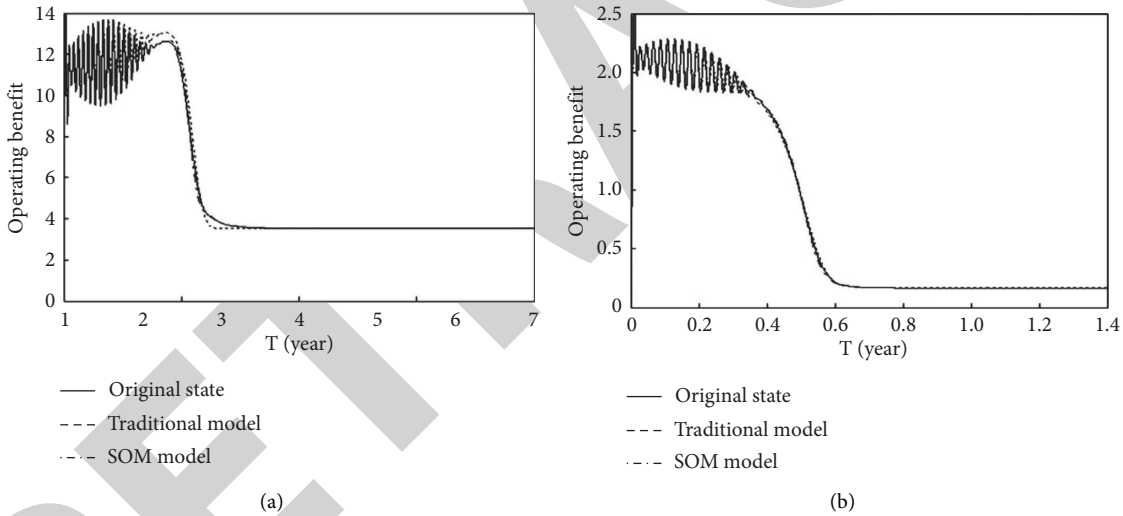

Figure 7: Changes of two kinds of economic benefits with time.

With strong fault tolerance, it can fully approach any complex nonlinear curve, and samples are not required to be independent or obey normal distribution, and all quantitative or qualitative information is distributed and stored in each neuron in the network. It has storage function and self-learning function and can learn and adapt to unknown or uncertain systems.

4. SOM Clustering and Top-k Selection Mechanism

Let the input layer $x = (x_1, x_2, ..., x_n)$ be an N-dimensional vector, let the output layer be a two-dimensional network with m nodes, and let w_{ij} be the weight between the i-th input neuron node and the j-th output neuron node. The training process of

this algorithm was realized under the neural network environment [27]. Figure 8 shows the comparison of experimental results of CPI prediction.

(1) Initialize the connection weight, learning efficiency, and neighborhood, and w_{ij} selects random values between [0,1], and all values are different from each other.

(2) Normalize the sample and the connection vector. After normalization, calculate the input vector in the distance $d(x,w)$ from the output node:

$$d(x,w) = \sqrt{\sum_{i=}^{n} \left(x_i - w_{ij}\right)^2}. \quad (5)$$

(3) Select the smallest $d(x,w)$ from the distance nodes calculated above as the best matching node; that is, neuron i is the winning neuron.

(4) Adjust the update formula of weight vector:

$$w_{ij}(t+1) = w_{ij}(t) + \alpha(t)h(t)\left[x(t) - w_{ij}(t)\right]. \quad (6)$$

In the above formula, $\alpha(t)$ is the learning efficiency, $0 < \alpha(t) < 1$, and it decreases with time t; $h(t)$ is a function of the topological distance between the ith neuron and the winning neuron j in the neighborhood.

(5) Repeat the above steps until the learning efficiency $\alpha(t)$ is less than α min after learning all samples.

According to the above-mentioned clustering principle, for different systems that call the same service, if the QoS values in their model systems are the same or similar, then when users are clustered, there will be a greater probability that they will be clustered in the same cluster.

Before clustering, initialize the user relationship matrix M_u so that the initial values of all elements are 0. Aiming at the user set U_s calling service S, the SOM algorithm is used to cluster, and the weights w_1, w_2, and w_3 of neurons are initialized [28]. Firstly, the Euclidean distance between the first data (the score of the first user u_1 on service S) and three neurons is calculated, and neuron 1 with the smallest distance wins, and then weight w_1 of the winning neuron 1 is changed according to formula (6). Continue to calculate the distance between the next data and three neurons, and so on; each time only one neuron wins and changes the corresponding weight. Until the learning efficiency is less than the threshold, weights w_1 , w_2 , and w_3 of neurons tend to the clustering center, and the iteration stops [29, 30]. One is to focus on the HR value chain model, where HR practices affect employee output, that is, the relationship between attitudes and behaviors. The other is to use a mechanistic reductionist approach to measure the relationship between human resource management and organizational effectiveness using a cumulative stacking method. Then, according to the results of SOM clustering, the elements in the user relationship matrix are updated. The updating rules are assuming that user I and user J are clustered in a cluster in service S; then $u_{ij} = u_{ij} + 1$, and, at the same time, $u_{ji} = u_{ji} + 1$. Otherwise, it remains unchanged.

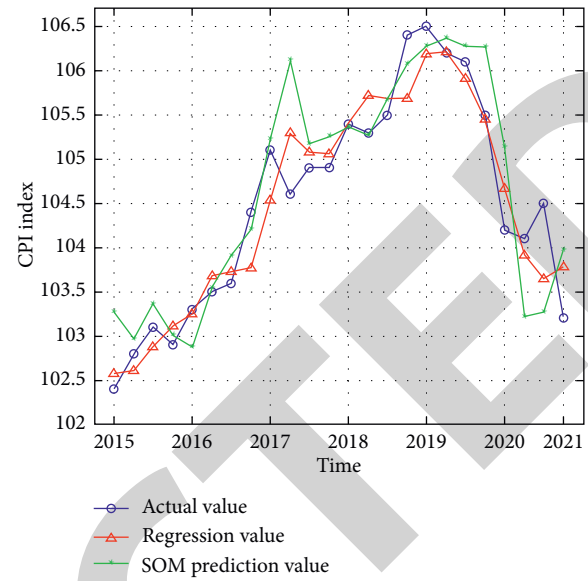

Figure 8: Comparison of experimental results of CPI prediction.

$$R_{u,i}(u) = \frac{\sum_{t=1}^{k}\left(r_{a(t)} \times u_{a(t)}\right)}{N_u}. \quad (7)$$

In the above formula, $u_{a(t)}$ represents the number of times of being clustered into the same cluster.

$$R_{u,i}(u) = \frac{\sum_{t=1}^{k}\left(r_{b(t)} \times u_{b(t)}\right)}{N_s}. \quad (8)$$

In the above formula, N_s represents the sum of the times that service I and all of them are clustered in the same cluster.

$$R_{u,i} = \lambda \times R_{u,i}(u) + (1-\lambda) \times R_{u,i}(i). \quad (9)$$

Parameter λ indicates the proportion by which the predicted value depends on similar users and similar services.

In this paper, a new Top-k selection mechanism is proposed. According to the clustering strategy, if two evaluation models are clustered in the same cluster more times, it is shown that the two models have the same or similar evaluation on the same efficiency of human resource management, and when they call the same benefit, the service evaluation between them is more referential. During clustering, u_{ij} is used to record the times that users u_i and u_j are clustered in the same cluster. After obtaining the user relation matrix M_u, the elements of each row are sorted from big to small, and the first k users are selected as similar users of the target user; that is, the similar user set of users u_i is $F(u_i) = \{a \mid u_{ia} \geq u_{ik}, u_{ia} > 0, A \in U, u_{ik} \in M_u\}$. This can reduce the influence of users' evaluation of malicious evaluation on prediction results. Take users of service s_1 as an example; users u_1, u_2, u_5, and u_7 have called service s_1 and given scores of 4.2, 4.5, 4.4, and 1.1, respectively. From the scores, it can be inferred that user u_7 is probably a user of malicious evaluation. When clustering, user u_7 will not cluster with users u_1, u_2, and u_5.

$$\mathrm{MAE} = \frac{\sum_{u,s} |R(u,s) - P(u,s)|}{N},$$
$$\mathrm{RMAE} = \sqrt{\frac{\sum_{u,s} (R(u,s) - P(u,s))^2}{N}}. \quad (10)$$

In the two formulas, mean absolute error (MAE) and root mean square error (RMSE) are defined.

Similarly, in clustering services, the more times two human resource evaluation models are clustered into the same cluster, the greater the correlation between the two models is and the more referential the user evaluation between them is. Therefore, after the clustering, the element values of each row in matrix M_s are sorted from big to small, and the first k services are selected according to the similarity of the target, that is, the similar service set of S_i.

5. Problems Existing in the Management of Enterprise Personnel Resources

5.1. The Development and Management of Human Resources Are Relatively Backward. The development of enterprises has been influenced by China's economic system for a long time, and the center of its operation and management is mainly reflected in the management of internal funds, material resources, and technology, while the importance of human resources management is relatively neglected. Its management and philosophy are relatively backward, so there is a lack of practical work on employees' career planning in the actual management of human resources and resources. Figure 9 shows the change of actual and predicted CPI values with time. As far as employees in enterprises are concerned, enterprises have neglected the cultivation of their business and the promotion of their abilities, which has made a definite impact on their all-round development. As for the state-owned enterprises, if they lack professional and far-sighted professionals, they will not be able to fully display the actual effectiveness of their internal employees, and the economic benefits of the enterprises will be affected.

5.2. Insufficient Investment in Human Capital. According to the development status of enterprises, most state-owned enterprises have sufficient capital and advanced equipment and technical means. However, due to the influence of their own system, market environment, and other factors, the investment in human capital has been neglected, which leads to the phenomenon of insufficient professionalism and low work enthusiasm of employees, which affects the development of enterprises. Specifically, most state-owned enterprises often use wage increase and other forms to stimulate employees' work enthusiasm and then obtain economic benefits. Figure 10 shows a typical U matrix diagram. This kind of management can effectively stimulate employees' work enthusiasm and improve their job satisfaction in a short time, but this kind of material incentive is not conducive to the improvement of employees' own ability, and it is not applicable in the long-term development of enterprises.

Enterprises need to pay more attention to the training of employees and make good use of other incentives besides material incentives to ensure the realization of employees' self-worth. For example, through regular training, education, and long-term study, employees' acquisition ability can be improved, the advanced nature of employees can be ensured, and their self-worth can be realized; that is, they can get spiritual satisfaction besides material rewards, further improve their work enthusiasm, maximize their practical utility, and provide guarantee for improving the economic benefits and all-round development of enterprises.

5.3. Single Human Resource Management Mode and Centralized Management Authority. Enterprises pay more attention to the development of management, which leads to the problem that the power of human resource managers is too concentrated. On the one hand, the enterprise pays attention to the management but neglects the management and training of other employees in the enterprise. The single management mode of human resources is not conducive to the comprehensive development of state-owned enterprises. Also the state-owned enterprises pay too much attention to the management, and other employees within the enterprise have few opportunities to learn and promote, which greatly inhibits the development of other employees, which has a certain negative impact on other employees and the overall development of the enterprise.

6. Based on SOM Model, the Strategy of Human Resource Management Is Obtained

6.1. Improve the Development and Management Concept of Human Resources in Chinese Enterprises. Figure 11 shows the cluster diagram of 14 parameters and indicators. Knowledge is flexible, and the management of human resources in state-owned enterprises is of great importance to the development of enterprises. State-owned enterprises should keep up with the pace of the times, bring forth the old and the new, create new human resources, manage thinking and thinking, and attach great importance to the self-development of employees, so as to implement the education and training of internal employees and further ensure the cultivation of employees' working attitude and working ability.

6.2. Increase Investment in Human Capital and Strengthen the Construction of Personnel Team. State-owned enterprises should increase the investment of manpower and capital and put more precision, manpower, and financial resources into the education and training of employees. They should attach great importance to the education and training of employees and strengthen the cultivation and construction of professional teams, so as to maximize the value of employees and realize the rapid and sound development of enterprises. First of all, human resource managers in state-owned enterprises should be prepared for the long-term development, pay attention to the long-term development of internal employees, and increase the training of internal employees' ability and professional quality through regular training,

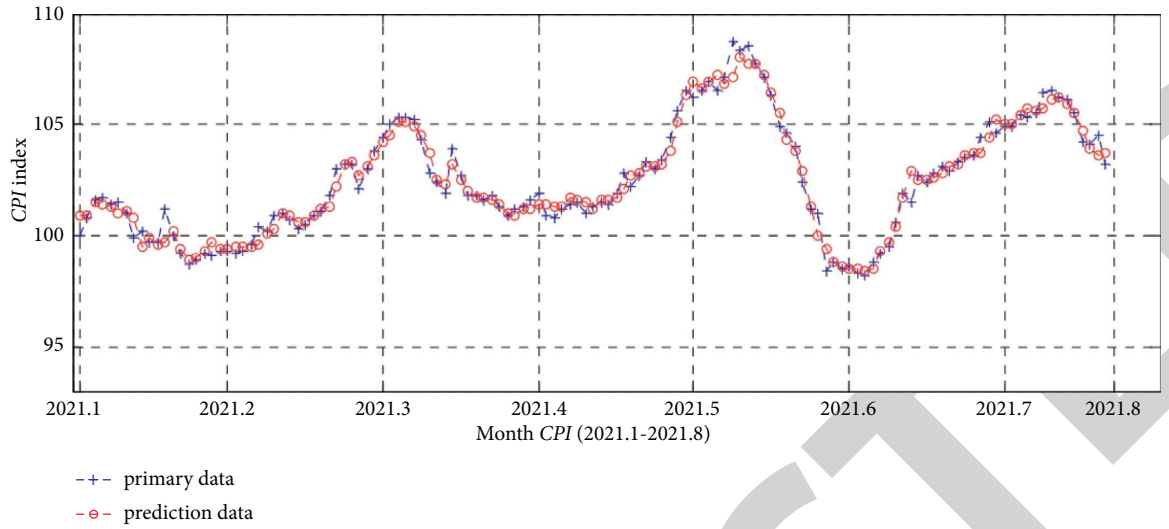

Figure 9: Changes of actual and predicted CPI values with time.

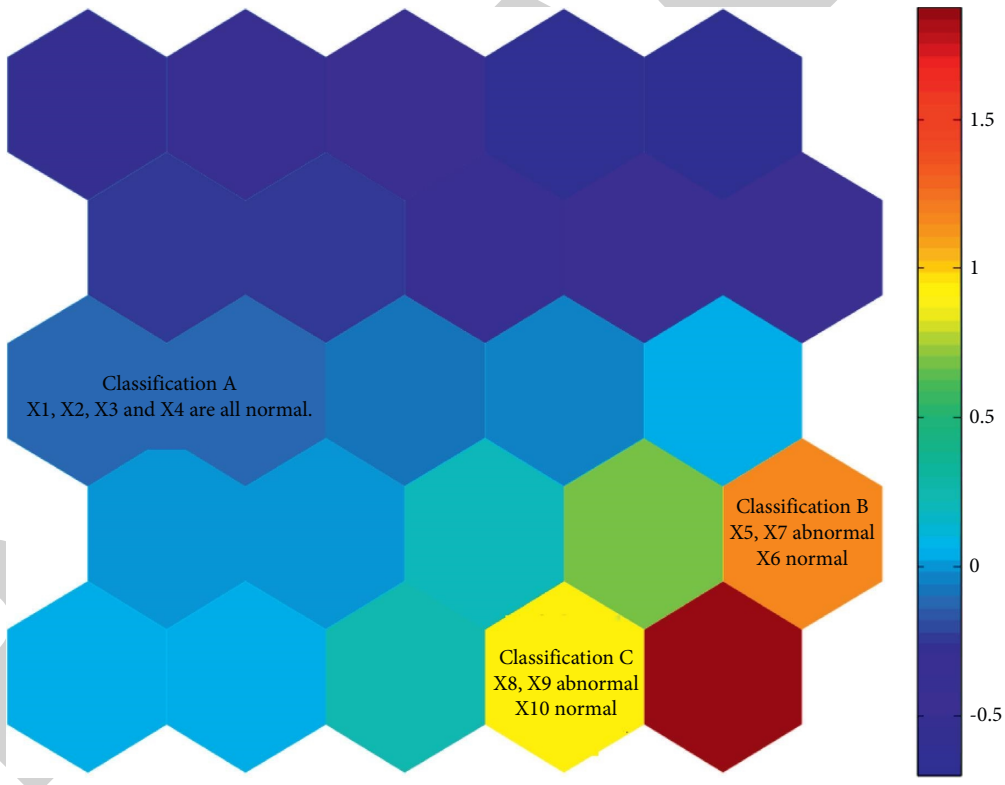

Figure 10: Typical U matrix diagram.

educational activities, and going out for further study. Secondly, enterprise human resource managers should also consider their business ability from the perspective of the actual situation of employees, make the best use of their talents, arrange their work positions reasonably, ensure the rational allocation of human resources, improve the efficiency of work, and promote the realization of maximizing the economic benefits of enterprises.

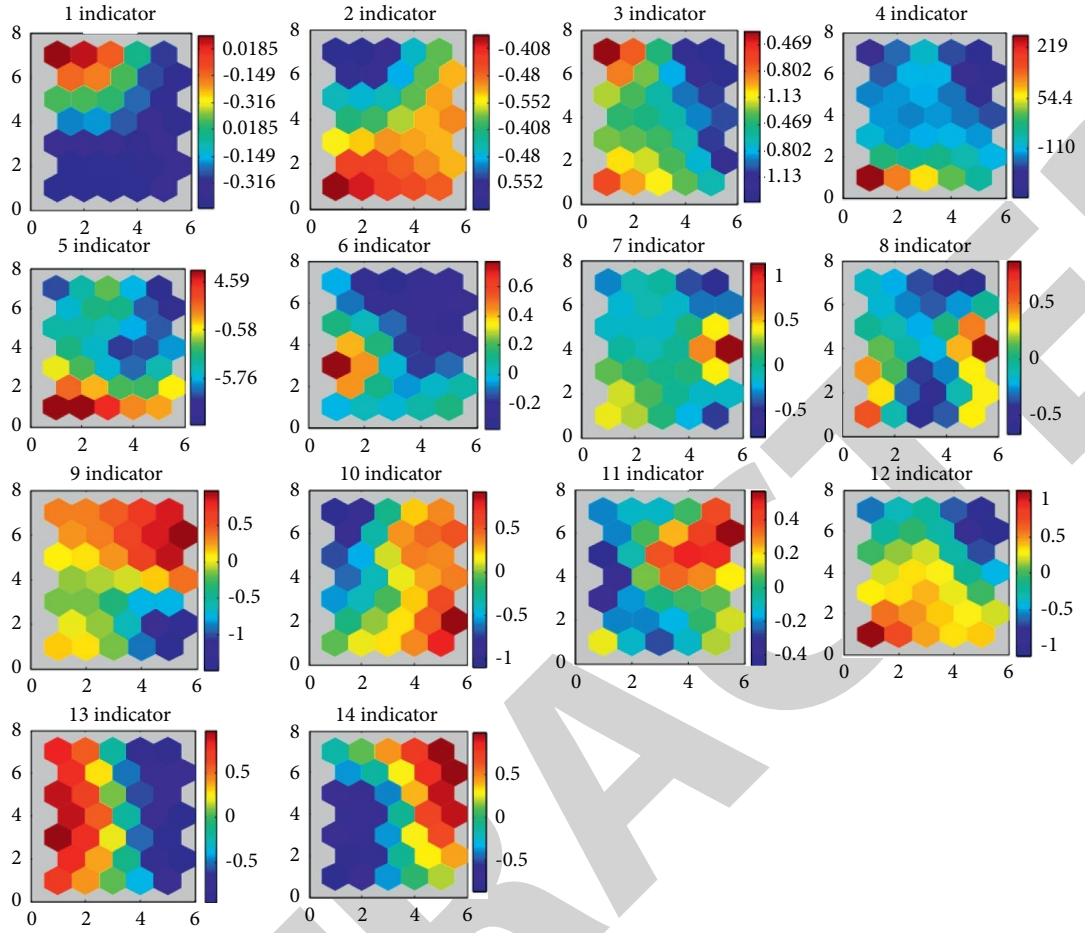

Figure 11: Cluster diagram of 14 parameters and indicators.

6.3. Enrich Management Mode and Decentralize Management Power. Enterprises should change to a single and centralized management mode. Human resource management departments should pay attention to the development of employees' abilities and let employees have room for improvement and promotion, decentralize the traditional centralized management to all levels of organizations and departments within the enterprise, and, at the same time, delegate some of the power to more excellent employees. As shown in Figure 12, the statistical result of Consumer Price Index (CPI) value supports the view. On the one hand, it gives employees room for improvement; on the other hand, it plays a positive role in stimulating employees and improves their enthusiasm for work. For the development of enterprises, the improvement of their enthusiasm for work directly promotes the improvement of work efficiency and further promotes the economic benefits of enterprises.

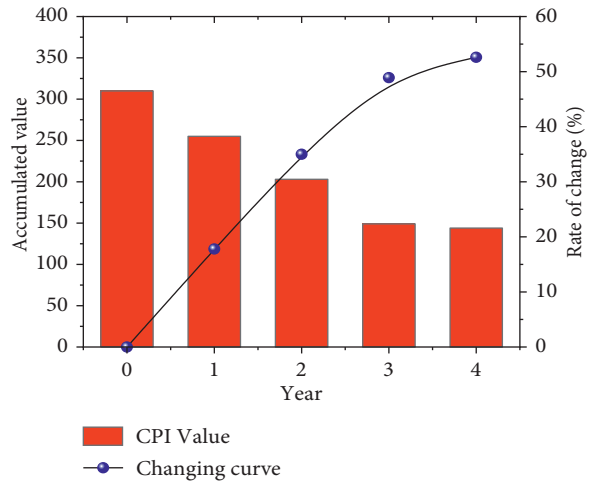

Figure 12: Statistical result of CPI value.

7. Conclusion

In the fierce market competition of modern enterprises, human resource management has gradually become an important research field. In order to understand the evaluation mode of human resource management in time, it has become a problem that managers urgently want to solve. The efficiency of human resource management evaluation model established by this network system can fundamentally ensure that all problems in the management system can be solved. It makes a certain contribution to the progress and stability of the enterprise economy.

In a word, there are different assumptions and methods for evaluating the benefits of human resources management of organization, but there is no recognized successful tool until the end of the day. The evaluation of human resources management, effectiveness, and benefits is either centered on the inner part of the function or centered on the outer part of the function, without combining the inner part and the outer part to evaluate, which leads to the incomplete evaluation index. We believe that, on the premise of fully clarifying the relationship and mechanism between human resource management and organizational benefits and comprehensively considering the "effectiveness" evaluation research of this management, it may be the direction of future research and development to establish a systematic efficiency of this management evaluation system from the internal and external aspects of the organization's functions, using the evaluation method of combining qualitative and quantitative, as well as following the idea of "evaluation-feedback-improvement."

Although the research on this topic has made a definite progress, there are still three main problems. However, a large part of the research is only to analyze the questions that should be paid attention to when measuring the benefits of human resource management. The proposed evaluation index lacks the corresponding support of strength and quantity and has no strong convincing power in its effectiveness. Second, most related research measure the adaptability, implementation, and effectiveness of human resource management in organizations from the three dimensions of coordination, efficiency, and effectiveness, without evaluating the human resource management activities from a systematic angle, as well as paying attention to a certain link of human resource management only, failing to systematically and comprehensively measure the benefits of human resource management in organizations. The dimensions of coordination, efficiency, and effectiveness rarely involve the measurement of various skills of human resource management workers.

Data Availability

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

Conflicts of Interest

The authors declare that they have no conflicts of interest or personal relationships that could have appeared to influence the work reported in this paper.

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