

## Research Article

# Allocation Method of Enterprise High-Quality Human Resources Based on Intelligent Big Data

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At present, the variation coefficient is used to calculate the difference between personnel and individual posts, which leads to the poor ability of allocating enterprise human resources. Therefore, a high-quality enterprise human resource allocation method based on intelligent big data is proposed. According to the four principles, the process of model building is designed, the hypothesis of model building is made, and the model of optimal allocation of human resources is constructed. From the personnel and post quantity, personnel and post structure, personnel and post quality, system, and other four aspects of optimal allocation, design the model running process, network personnel and posts, and use network indicators to match personnel and posts. The adjustment layer is introduced into the basic CNN model structure, and the input layer of intelligent big data is used to normalize the score of current high-quality human resources of enterprises. After the local characteristic processing is implemented on the human resource scoring matrix, the human resource allocation results are output to realize the allocation of high-quality human resources of enterprises. The experimental results show that the evaluation effect of the method is good, the evaluation time is short, the work efficiency is high, the credibility of human resource structure allocation is good, and the human resource allocation method has a good human resource structure allocation ability.

## 1. Introduction

Human resource structure is the primary content of human resource management. An enterprise's high-quality human resource structure is an effective way to promote enterprise production efficiency [1]. The high-quality human resource department of the enterprise is one of the cores of enterprise development. It can continuously introduce and cultivate core technical talents and continuously integrate, effectively fit, and cooperate with talents and related material resources, so as to enhance the operation effect of the enterprise [2, 3]. However, under the background of informatization, the market competition environment is extremely fierce, the demand for talents by enterprises is constantly increasing, and the selection standards for talents are also changing. This change directly affects the original human resource allocation methods of large enterprises. Problems such as job mismatch and unreasonable operation lead to a decline in the overall work efficiency of the enterprise [4, 5]. Based on this, enterprises need to focus on the overall advantages

of human resources and recognize the importance of human resource allocation, so as to optimize the allocation of high-quality human resources, meet the needs of enterprise development for talent allocation, promote enterprise reform and management, and adapt to the fierce market competition environment [6, 7].

According to the background of the information age, relevant scholars put forward the following views. Reference [8] puts forward that the allocation, budget, and management of human resources and the management of nursing and midwifery resources are the basis of the nursing ability of any medical institution. Some nurse allocation plans and shift scheduling principles are described to provide background, focusing on the matching of service demand and human resource allocation. The common nursing workload problem is mainly due to the widespread use of incomplete and inaccurate information. Roster is a very important part of management productivity. It provides a detailed description of roster development and related financial management. The use of the electronic evidence-based acuity system integrated with

the enterprise information system of medical institutions can support real-time decision-making and provide the best match for the service demand and human resource allocation of various service types. In Reference [9] in order to alleviate the midwife crisis in Africa, a human resource information system was designed and introduced. Every year, 2.7 million newborns die on the first day of life: that number is equivalent to the entire population of Namibia. In the year of nursing and midwives, the importance of skilled midwives was emphasized: researchers estimated that midwife-assisted childbirth could reduce maternal, fetal, and neonatal deaths by 56%. The search included peer-reviewed studies and discussion reference on variables that assess HRH capacity. Considering the shortage and inadequate retention of human resources for the provision of maternal and neonatal health services in a resource-deficient environment, international organizations should focus on strengthening the capacity of communities and facilities and midwives as a practical measure to reduce maternal and perinatal mortality by at least half. Information systems may contribute to the formulation of national and local policies to meet regional and national needs and the human resource needs of the health care system. Key information systems may contribute to the formulation of national and local policies. International organizations should focus on strengthening the capacity of midwives at the community and facility levels. The human resource allocation method studied above cannot be effectively applied in enterprises. Therefore, intelligent big data is adopted to allocate enterprise resources and improve enterprise output value, and an enterprise high-quality human resource allocation method based on intelligent big data is proposed. Intelligent big data refers to that the initial enterprises generally positioned it as building a simple automation system. With the development of business, the position of enterprises in the market gradually improved, and gradually enterprises began to need some large systems. Some enterprises have built an integrated information work platform, and the standardization, informatization, integration, and the intensive level have been improved by leaps and bounds. With the increasing maturity and in-depth application of the information system, the system data presents the characteristics of massive growth and dynamic change. Users put forward higher requirements for the deep mining and real-time reflection of massive data. New technologies such as cloud search and big data provide technical support for users' needs. At the same time, according to the four principles, the model building process is designed, the model building hypothesis is made, and the optimal allocation model of human resources is constructed. The model running flow is designed from four aspects of optimal configuration. The personnel and post are networked, and the individual differences of the two networks of personnel and post are calculated by the deviation degree of variation coefficient to match the personnel and post. By introducing the adjustment layer in the model structure based on CNN, using intelligent big data input layer to the current enterprise human resource quality score normalization processing, to implement local human resource score matrix characteristic after processing, with the output of human resource allocation as a result, the research shows that the design method has good performance and the strong ability of human resource structure configuration.

## 2. Optimal Allocation Method of Enterprise High-Quality Human Resources Based on Intelligent Big Data

High-quality human resources in the enterprise include three types of personnel: senior management, middle management, and grassroots technology. In terms of enterprise functions, they include personnel from customer service, administration, sales, production, R&D, and other departments. Therefore, human resources are the basic resources of enterprise resources and play an indispensable and important role in the operation, development, and management of enterprises. If enterprises want to develop continuously, they must pay attention to the allocation of human resources. The allocation of human resources needs to divide the high-quality human resources of the enterprise into  $N$  departments. In the process of division, the personnel need to have a high degree of adaptability with the post in order to improve the operation and management efficiency of the enterprise. Based on this, this study studies the allocation method of enterprise high-quality human resources and realizes the allocation of enterprise high-quality human resources by establishing the optimal allocation model of human resources.

*2.1. Establish the Optimal Allocation Model of Human Resources.* Based on the four principles of fairness and justice, complementary advantages, dynamic regulation, competition, and cooperation, this study establishes an optimal allocation model of human resources. The process of establishing the model is as follows: step 1: review the historical data of large enterprises; step 2: design conceptual model; step 3: model architecture and implementation; step 4: verify the correctness of the model; step 5: model utility verification; step 6: if the correctness verification is unqualified, return to step 3; and step 7: if the model utility verification is unqualified, return to step 2.

Based on the establishment process of the optimal allocation model of human resources, the following assumptions are made:

*Hypothesis 1.* There are  $N$  entities in the allocation of high-quality human resources, that is, the total number of departments in the allocation of high-quality human resources.

*Hypothesis 2.* Without dividing the organizational structure types of enterprise departments, the process of department selection and resource competition belongs to the process of rational and reasonable competition.

*Hypothesis 3.* The work efficiency of employees in the enterprise department remains unchanged.

*Hypothesis 4.* The working system of the enterprise is 8 hours, and the overtime of employees is not considered.

According to the established modeling principles, processes, and assumptions, the final human resource optimal allocation model is established, as shown in Figure 1.

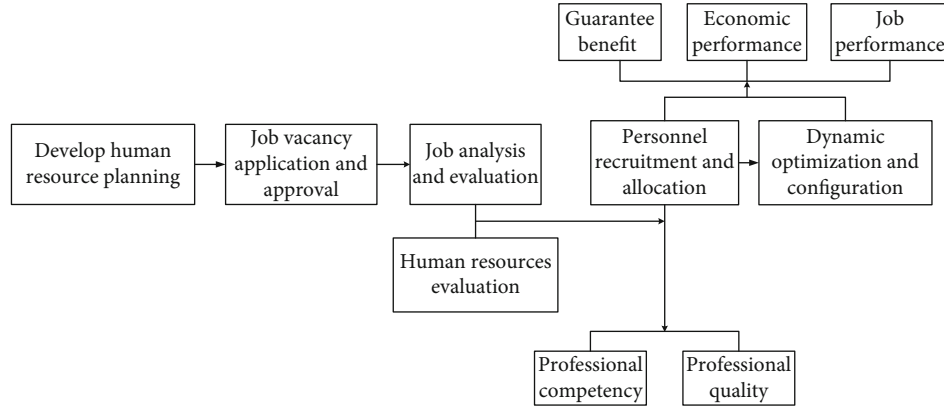


FIGURE 1: Optimal allocation model of human resources.

2.2. *Design the Optimal Allocation Process of Human Resources.* Based on the optimal allocation model of human resources shown in Figure 1, the designed optimal allocation of human resources includes the specific process of optimal allocation of personnel and post quantity, personnel and post structure, personnel and post quality, system, and so on.

- (1) Optimal allocation of the number of personnel and positions: it is the first step of the optimal allocation model of human resources. It is necessary to formulate a dynamic human resource development plan according to the personalized differences between personnel and positions. The main steps are as follows: step 1: comprehensively and scientifically analyze the enterprise position and employee information. Step 2: predict the matching degree between employees and various positions of the enterprise. Step 3: understand the personnel changes of the enterprise in real time and prepare the personnel management plan. When the supply of personnel for each position is less than the demand for personnel for each position, it is necessary to recruit in time to supplement the vacant positions. On the contrary, it is necessary to train employees and adjust internal positions. Step 4: allocate human resources. Step 5: investigate the allocation effect and dynamically adjust the employees who do not meet the internal and external environmental changes, job requirements, and other factors [10]
- (2) Optimal allocation of personnel and post structure: the organizational structure of the enterprise is the basis for the optimal allocation of human resources, so it is necessary to intensively manage the organization and elements of the enterprise. Adjust the layout of designated business institutions, centrally manage the high-quality human resources of enterprises, and formulate unified management standards
- (3) Optimized allocation of personnel and post quality: it is necessary to improve the post quality from the perspective of employees. The specific steps are as follows: step 1: strengthen the internal recruitment

and promotion mechanism of the enterprise; step 2: optimize the test method of external recruitment staff; step 3: evaluate the post competence of employees; and step 4: evaluate the person post matching degree

- (4) Optimal allocation of the system: the optimal allocation system of human resources is closely related to post performance and employee incentive means [11]. Therefore, the optimal allocation steps of the system are designed from the two aspects of post performance and employee incentive means
  - (i) Post performance: determine key performance assessment indicators by classification, perform different evaluation, and use science to assess performance
  - (ii) Employee incentive means: reward employees' wages, give trust to employees, and honor employees

2.3. *Matching Personnel and Positions Based on Intelligent Big Data.* From the optimized allocation process of human resources designed this time, we can see the importance of the matching degree between personnel and positions. Therefore, according to the individual differences between people and positions, the positions competed by personnel are matched [12]. Therefore, the network of personnel and posts is recorded as a personnel network and post network, respectively, and the two networks are matched according to intelligent big data to realize the matching of personnel and posts.

Firstly, the variation coefficient and deviation degree are used to calculate the individual differences between the two networks of personnel and posts to determine the intelligent big data of personnel and personnel, posts and posts, and personnel and posts. The calculation formula is as follows:

$$R_r = \frac{S}{\bar{P}} \times \frac{|\bar{x} - \eta|}{\bar{x}} \times 100\%. \quad (1)$$

In formula (1),  $S$  represents the standard deviation,  $\bar{P}$

represents the average value,  $\bar{x}$  represents the average value of each index, and  $\eta$  represents the network characteristic value. Formula (1) is used to calculate the deviation degree of variation coefficient between two networks. The calculation result threshold  $[0, 1]$  is between. The larger its value is, the larger the intelligent big data between posts and personnel is. On the contrary, when the intelligent big data value between the two networks reaches the minimum, the matching degree between the position node and the personnel node in the two networks is higher.

Based on the calculation results of two network intelligent big data based on formula (1), the network index is used to determine the matching degree between personnel and posts. The network includes network indicators such as clustering coefficient, participation coefficient, center intermediate degree, optimized community structure, node strength, local efficiency, classification coefficient, and node degree [13, 14]. According to the definition of network indicators, seven network indicators such as clustering coefficient, local efficiency, center spacing, classification coefficient, maximization modularization index, and participation coefficient are selected to match personnel and posts [15, 16].

In the same department function of a large enterprise, one or more employees are required for the same position to cooperate to complete the tasks assigned by the enterprise. Therefore, select the classification coefficient  $A_a$  index in the network, calculate the correlation between the employee network and the  $i$ th position node in the position network, and obtain the appropriate number of employees for a position. Then,

$$A_a = \frac{L_{i,j}^{-1} \sum_{(i,j) \in l} S_i S_j}{L_{i,j}^{-1} \sum_{(i,j) \in l} 1/2 (S_i^2 + S_j^2)} \times R_r. \quad (2)$$

In formula (2),  $S_i$  represents the degree of  $i$  under the position network node,  $l$  represents the characteristic path length of  $L_{i,j}$ , and  $S_j$  refers to the degree under the personnel network node  $j$ . According to formula (2), the number of personnel corresponding to each position in the position network can be determined. At this time, it is necessary to use the maximization modularization index  $q$  in the network index to divide it into network modules, including

$$Q_q = \sum_{u \in U} \left[ E_u - \left( \sum_{v \in V} e_v \right)^2 \right] \times A_a. \quad (3)$$

In formula (3),  $u \neq v$  represents nodes in the network module, where  $u$  represents any position node and  $v$  represents position nodes other than  $u$ ;  $U \neq V$  represents the modules divided according to different positions in the network, where  $U$  represents the modules divided according to position  $u$  and  $V$  represents the modules divided according to position  $v$ ;  $E_u$  and  $e_v$  represent the boundary between position node  $u$  and position node  $v$  [17].

According to the calculation process of formula (3), several relatively suitable personnel are matched for each posi-

tion. Due to the limited number of personnel required for each post, it is necessary to allocate human resources for enterprise posts in descending order according to the number of personnel required by the post and the level of personnel excellence [18, 19]. Therefore, select local efficiency  $P_p(i)$  and predict the work efficiency of the person in the post according to the calculation result of formula (1); then,

$$P_p(i) = \frac{1}{O_o(O_o - 1)} \times Q_q. \quad (4)$$

In formula (4),  $O_o$  represents the module of position node  $i$  divided by formula (3).

Based on the work efficiency of the person in the corresponding position obtained from formula (4), the importance of the person to his position can be determined according to the central dielectric coefficient index  $B(i)$  of the network, and the calculation formula is as follows:

$$B(i) = \sum_{j \neq i, k \in G} m_{k,j}. \quad (5)$$

In formula (5),  $G$  represents the directed network composed of personnel and positions,  $k$  indicates personnel nodes other than the personnel node  $j$ , and  $m_{k,j}$  represents the number of the shortest paths from node  $k$  to node  $i$ . At this time, the shortest path represents the number of people who are competent for position  $i$  [20].

According to the calculation process of formulas (2)~(5), using the clustering coefficient  $C$ , the adaptability between the person and his post is obtained, which is as follows:

$$C = \frac{1}{n} \sum_{i \in O} C_i. \quad (6)$$

In formula (6),  $C_i$  represents the clustering coefficient of position network node  $i$ ,  $n$  represents the number of selected personnel, and  $O$  represents the set of position network nodes [21]. According to the calculation results of formula (6), the matching between personnel and positions can be determined.

Based on the above contents, the optimal allocation process of human resources and the matching calculation process of personnel and posts are substituted into the model shown in Figure 1; that is, the research on the optimal allocation method of enterprise high-quality human resources is completed.

### 3. Realize the Allocation Method of Enterprise High-Quality Human Resources Based on Intelligent Big Data

The premise of realizing the allocation of high-quality human resources is to have a good grasp of the distribution of high-quality human resources in the current enterprise [22, 23]. Therefore, it is necessary to predict the distribution of high-quality human resources in the current enterprise and establish the prediction model of enterprise high-

quality human resource distribution by using intelligent big data; that is, add a regulation layer within the basic CNN structure level. Locally characterize the enterprise high-quality human resource distribution score matrix, and obtain the current human resource score. After network model training, output the final prediction results [24]. Improve the structure of CNN enterprise high-quality human resource prediction model, as shown in Figure 2.

Using the local characterization function in the structure of the human resource prediction model can effectively obtain the preference characteristics of human resources and improve the final output result of the whole connection layer of the improved CNN human resource prediction model according to the highest similarity of elements in the characteristics [25], and the specific steps are as follows:

Due to the certain sparsity of the human resource scoring matrix and the scoring value being generally within 10, there are limitations in the feature extraction of human resource information [26]. Therefore, it is assumed that everyone has scored the current enterprise's high-quality human resources, and the input layer of intelligent big data is used to normalize the current enterprise's high-quality human resource score, let  $Y$  represent HR scoring data, and its expression formula is as follows:

$$Y_{\text{nor}} = \frac{Y - Y_{\min}}{Y_{\max} - Y_{\min}}. \quad (7)$$

In formula (7), the subscripts nor, max, and min of human resource scoring data represent the normalized data and the maximum and minimum values in the dataset, respectively.

Use the normalized enterprise high-quality human resource score to establish a two-dimensional matrix [27], so that  $i$  represents a row and  $j$  represents a column. The expression formula is as follows:

$$D_{ij} = A_i \oplus B_j. \quad (8)$$

In formula (8),  $D_{ij}$  represents the local characteristic sub-matrix of row and column,  $A_i$  and  $B_j$  represent the row vector and column vector, and the symbol  $\oplus$  represents that the row vector and column vector form a two-dimensional matrix [28, 29].

Since the enterprise personnel have certain subjectivity and preference for the current human resource distribution score [30], the first three levels in the intelligent big data are used to implement local feature processing for the current human resources. After the input layer normalizes the enterprise high-quality human resource score data, the first convolution layer is used to obtain the new human resource feature matrix and make  $w$  represent the convolution core,  $o$  and  $u$  represent the row and column moving steps in the convolution kernel, respectively, and the offset term and activation function are represented by  $b$  and  $\sigma$ , respectively. The expression of the new characteristic matrix of human

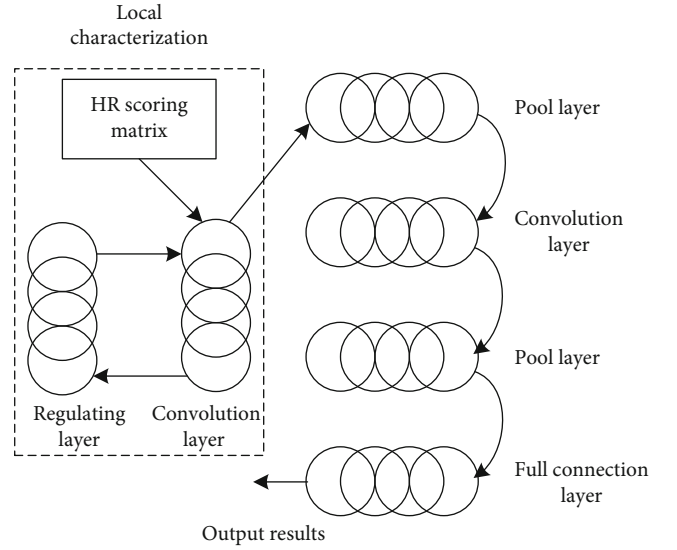


FIGURE 2: Improved CNN human resource prediction model structure.

resources is as follows:

$$F = \sigma \left( b + \sum_{l=1}^L \sum_{m=1}^M \omega_{l,m} a_{o+l, u+m} \right). \quad (9)$$

In formula (9),  $1 \leq l \leq L$ ,  $1 \leq m \leq M$ ,  $L$ , and  $M$ , respectively, represent the number of rows and columns of the new feature matrix,  $\omega_{l,m}$  represents the weight of the number of  $l$  rows and  $m$  columns of the new feature matrix, and  $a_{o+l, u+m}$  represents the score of the  $o+l$  user on the  $u+m$  HR allocation.

After the convolution layer obtains the new human resource characteristic matrix, in order to obtain the human resource characteristics more accurately, it is necessary to set different convolution kernel weights [31, 32], so multiple human resource subcharacteristic matrices are obtained. At the same time, the same number of regulatory layer neurons as the human resource characteristic matrix is set, and the expression formula of regulatory neurons is as follows:

$$T_i = \sigma \left( \sum_{j=1}^j t_{i,j} \right). \quad (10)$$

In formula (10),  $i$  and  $j$  represent the number of rows and columns of each subcharacteristic matrix, respectively, and  $T_i$  represents the value of neurons. After obtaining the neuron value of the regulation layer according to formula (10), sort the value to obtain the ordered value of the regulation layer, and adjust the score matrix output by the convolution layer according to the position change of the neuron of the regulation layer after sorting, let  $C_i^k$  represent the starting position of the human resource scoring matrix [33, 34], and the step size of the convolution kernel is 1. When adjusting the row or column direction,  $k$  represents the row and column direction. Let  $B_{n \times m}$  represent the HR

scoring matrix of enterprise personnel, and  $n$  and  $m$  represent rows and columns, respectively; then, the expression formula of the starting position of the HR scoring matrix is as follows:

$$C_i^k = [B_i^m, B_{i+1}^m, \dots, B_{i+k-1}^m]^T. \quad (11)$$

In formula (11),  $B_i^m$  represents the column vector of row  $i$  and column  $m$ .

The adjustment layer in the improved CNN model is used to exchange rows and columns. The expression formula is as follows:

$$\text{exchange}(k_i, k_j) = C_i^k \Theta C_j^k. \quad (12)$$

In formula (12), the exchange function is represented by  $\text{exchange}(k_i, k_j)$ ;  $B_i^m$  and  $C_j^k$ , respectively, represent the row vector and column vector of the adjustment matrix. After exchanging the distinguished row vector and column vector, the local characteristics of human resource allocation score are obtained.

According to the above formula, obtain the local characteristics of human resource allocation score, take this feature as the input of the pooling layer of the improved CNN model, and output the final prediction results of current enterprise high-quality human resource allocation through the pooling layer, convolution layer, and full connection layer, so as to provide data support for subsequent human resource allocation [35, 36]. To sum up, the specific process of enterprise high-quality human resource allocation is shown in Figure 3.

At the same time, when configuring human resource results, you should also enter the name of the storage document of the performance evaluation results in the interface of the performance evaluation system, so as to facilitate the later processing of the evaluation results. In order to improve the data storage module, the function of replacing the storage path of human resource performance evaluation results is set. If the storage path needs to be replaced, directly reenter the new path to complete the replacement. At this time, the new data input path will be assigned by the text box. Finally, enter the number of human resource performance evaluation results, select the performance evaluation type, save the evaluation results in the database, and complete the enterprise high-quality human resource allocation method based on intelligent big data.

#### 4. Experimental Analysis

The experiment was conducted in an enterprise with 950 employees. This experiment is to test the service quality of employees in the call service center department of the enterprise. The number of employees in the department is 100. The MATLAB platform is selected as the main experimental platform, the operating system is Windows 10, the CPU is 2.6 Hz, and the system running memory is 8 GB. The specific experimental environment is shown in Table 1.

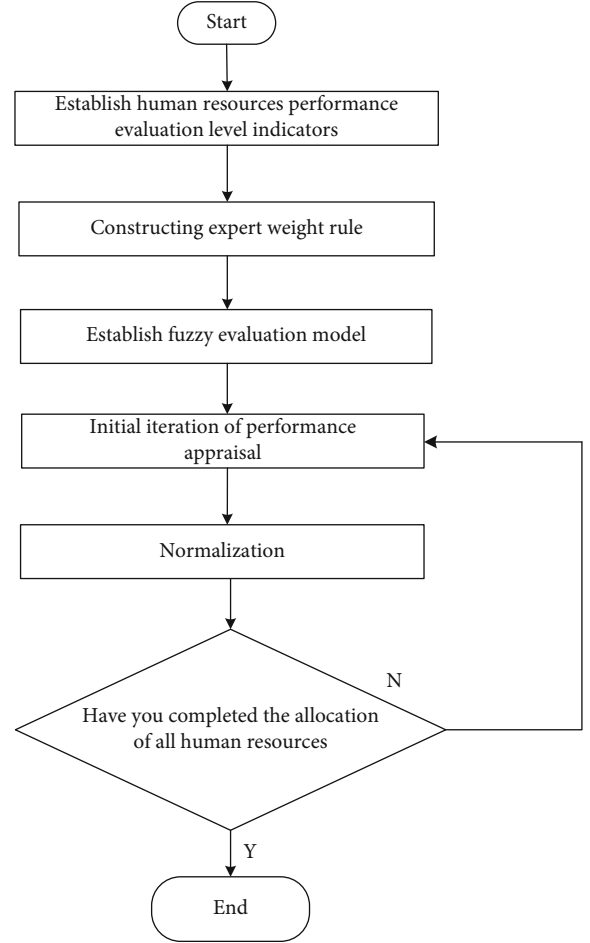


FIGURE 3: Flowchart of enterprise high-quality human resource allocation.

The number of nodes for human resource information sampling of the power system is set as  $n = 50$ , and the employees of the enterprise call center are divided into 4 groups with 25 people in each group. Specific parameters are shown in Table 2.

The service quality of these four groups of employees is evaluated according to satisfaction (>95 points), average (85~94 points), and dissatisfaction (<85 points). The actual evaluation results are shown in Table 3.

According to the settings in Tables 2 and 3, an experiment is carried out to evaluate the effectiveness of the high-quality human resource allocation method based on intelligent big data. The effectiveness of this method is verified by comparing the evaluation accuracy and efficiency of this method, Reference [8] method, and Reference [9] method. In order to improve the reliability of the system performance test process, it is necessary to refine the scale of performance evaluation. In order to reduce the error of performance evaluation and improve the accuracy of human resource performance evaluation, the following test steps are designed:

Step 1. Make evaluation plan.

In order to effectively test the application performance of the enterprise high-quality human resource allocation

TABLE 1: System test environment.

Name	Type	Scope of application
Browser	IE8.0 above	User terminal
Database	SQL Server 2008	Database management
The server	Windows Server 2018 R2	Web server
Operating system	Windows 10	Deployment system
Processor	Intel Core-M480I5 CPU	Information processing and program execution unit
Simulation platform	MATLAB R2011b	—
Programing language	VC++6.0	Program development

TABLE 2: Human resource service performance configuration parameters.

Parameter	The values
HR service node (number)	12
Service performance complex data size (bit)	345
HR transfer rate (number/s)	0.2
Test interval (min)	5
Simulation time (s)	100
Statistics (number of people)	100

TABLE 3: Actual evaluation results of experimental samples.

Group serial number	Satisfied/fraction	Commonly/fraction	Dissatisfied/fraction
1	95	86	82
2	98	87	81
3	97	88	79
4	97	87	73

method (this method) based on intelligent big data and highlight the application advantages of this system, the method in Reference [8] and the method in Reference [9] are used as a comparison to jointly complete the performance comparison test. In this process, the response efficiency of performance query and the accuracy and confidence of evaluation result query are selected as the performance verification indicators.

#### Step 2. Technical preparation.

The above three methods are loaded in the MATLAB r2011b simulation platform, respectively, and the relevant index information is intelligently counted through the background of the operating system.

#### Step 3. Comparison of experimental results.

By comparing the experimental results of different methods, we can judge the application performance of different methods.

In order to verify the effectiveness of this method, the service quality of call center employees in the enterprise is evaluated through 10 experiments. The evaluation accuracy of this method, Reference [8] method, and Reference [9] method is compared. The experimental results are shown in Figure 4.

As can be seen from Figure 4, there are certain differences in the evaluation accuracy of the three methods for evaluating human resource service performance. When the number of experiments is 4, the evaluation accuracy of this method is about 91%, that of Reference [8] is about 63%, and that of Reference [9] is about 79%. When the number of experiments is 10, the accuracy of the model evaluation in this paper is about 98%, the accuracy of the method in Reference [8] is about 65%, and the accuracy of the method in Reference [9] is about 82%. Through the comparison of the accuracy data of the three methods, it can be seen that the effect of this method in human resource service performance evaluation is better, up to 98%, and has a certain reliability.

In order to verify the application effect of this method in human resource service performance, the experiment compares the evaluation efficiency of this method, Reference [8] method, and Reference [9] method and records the evaluation time of each method. The experimental results are shown in Figure 5.

As shown in Figure 5, the evaluation time of the three methods changed with the change of the number of experiments. When the number of experiments is 3, the evaluation time of the model in this paper is about 3 s, the evaluation time of the method in Reference [8] is about 15 s, and the evaluation time of the method in Reference [9] is about 12.5 s. When the number of experiments is 7, the evaluation time of this method is about 4 s, that of Reference [8] is about 10 s, and that of Reference [9] is about 11 s. Through comparison, it can be seen that the evaluation time of this method is short, the work efficiency is high, and it is feasible.

In order to better verify the feasibility of this method, take the model judgment coefficient  $R^2$  as the confidence index to measure the human resource allocation of this method. The model judgment coefficient is the comparison result between the output target value and the actual target mean. Test the change of the judgment coefficient of this method when the personnel required by the enterprise project scale are different. The results are shown in Figure 6.

As can be seen from Figure 6, when the method in this paper is used to allocate employees for large-scale projects, the value of the judgment coefficient  $R^2$  rises rapidly and approaches 1.0. Subsequently, the value of the judgment coefficient  $R^2$  shows a gentle downward trend, but the downward trend is not obvious. When the number of employees required for the project is 50 to 250, the value of judgment

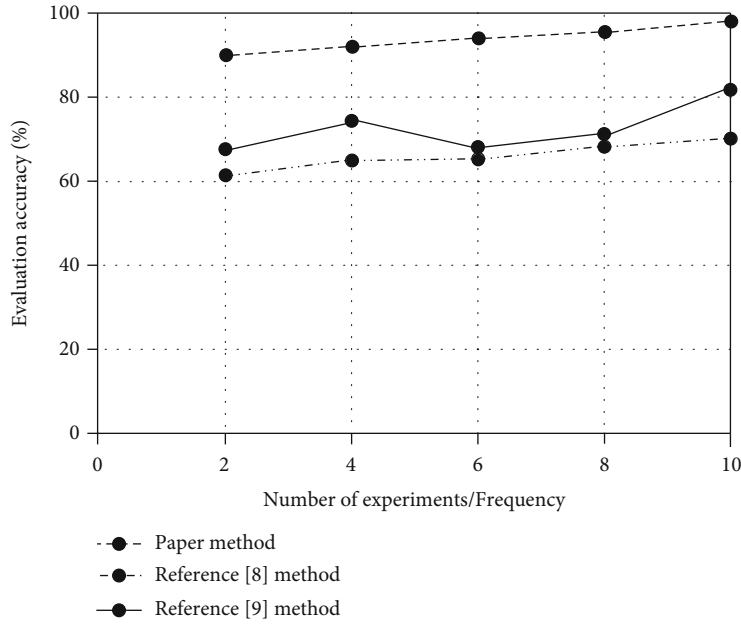


FIGURE 4: Comparison of accuracy of human resource service performance evaluation with different methods.

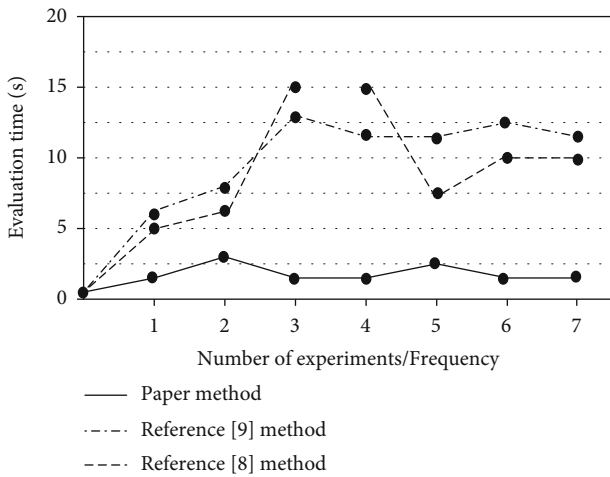


FIGURE 5: Time comparison of different methods to evaluate service performance.

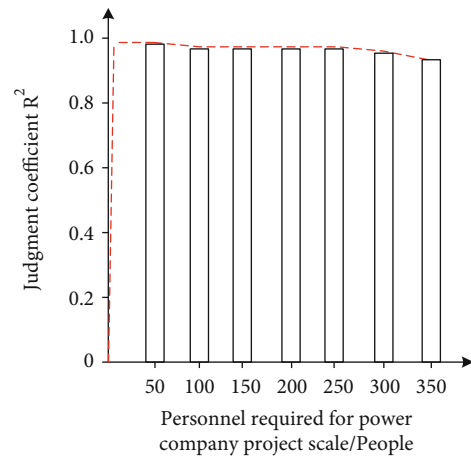


FIGURE 6: Reliability test results.

coefficient  $R^2$  is almost in a straight line, which is not affected by the increase in the number of employees required for the project. After the number of people required for the project exceeds 300, the judgment coefficient  $R^2$  of this method begins to decrease, but the decrease range is only about 0.02. The above results show that the reliability of the human resource structure of the enterprise project allocation method in this paper is good, and it can also explain that it is more reasonable for the high-quality human resource structure allocation of power grid enterprises.

To sum up, the enterprise high-quality human resource allocation method based on intelligent big data in this paper has the highest accuracy of 98% and high reliability in the evaluation of human resource service performance. It has

short evaluation time and high efficiency. At the same time, it has good reliability and good human resource allocation ability.

## 5. Conclusion and Prospect

### 5.1. Conclusion

- (1) The enterprise high-quality human resource allocation method based on intelligent big data has better effect in human resource service performance evaluation, up to 98%, and has certain reliability
- (2) The evaluation time of the method studied in this paper is short, the work efficiency is high, and it is feasible



- (3) The enterprise high-quality human resource allocation method based on intelligent big data has good reliability in the human resource structure of enterprise project allocation and has good human resource structure allocation ability. The potential value of the research is of great significance

## 5.2. Prospect

- (1) Due to the high degree of confidentiality of relevant data and materials of enterprises, this paper does not fully compare the efficiency of human resource allocation with that of enterprises in the same industry. Therefore, it is necessary to collect more relevant information of human resource allocation about enterprises in the same industry to compare and analyze the problems and experiences of human resource allocation
- (2) Due to the different situations of different organizations in the enterprise, there is no further comparison of the allocation of high-quality human resources in the enterprise. Therefore, it is necessary to collect detailed business data of the enterprise to conduct a more detailed and in-depth analysis and comparison of the efficiency of human resource allocation, so as to provide more targeted suggestions for the optimization of human resource allocation

## Data Availability

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

## Conflicts of Interest

The author declared that he has no conflicts of interest regarding this work.

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