



# Exploratory Study on Digital Transformation of Human Resource Management

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**Abstract.** The world has officially entered the era of big data, to promote the digital transformation of human resource management is to improve the quality and level of development of state-owned enterprises is the core, but also to enhance the core competitiveness of the market is an important guarantee. At present, enterprise companies are facing the challenges of new and old kinetic energy conversion, development model enterprise type change and digital change, digital transformation is imperative. Based on this, the paper the current situation of human resource management and necessity of digital transformation firstly. And then corresponding system of the 5P model under digital era is put forward, and the main present question of human resource is ascertained from company questionnaire. On this basis, the digital transformation strategy of enterprise human resource management under the conditions of the information age is proposed in order to optimize the human resource management system to the maximum extent. The importance of digital transformation is raised at the end of the paper, which can improve the quality of human resources. So, in one word, the paper puts forward the digital transform strategy and corresponding system development, which can provide a strong guarantee condition for the high-quality development of enterprises.

**Keywords:** Human Resource Management; 5P model; Digital Transformation; High Quality Development.

## 1 Introduction

The arrival of the digital era refers to the transformation of people life and work style with the rapid development of information technology. In this era, big data becomes an important resource. The definition of the big data era refers to the collection of largescale data through the Internet, sensors and other technologies, through data analysis and mining to help enterprises make more accurate decisions.

The characteristics of the big data era include large data volume, diverse data types, fast data speed and high value density. In the analysis of the current situation of human resource management in enterprises, we find that the traditional way of human

resource management can no longer meet the development needs of enterprise informatization and intelligence. Therefore, digital transformation has become an inevitable choice.

The necessity of digital transformation is reflected in the challenge of the transformation of old and new kinetic energy, the traditional way of human resource management focuses on the operation of human resource management, performance evaluation, etc., while the digital change pays more attention to the analysis and use of data, which can better utilize the potential of human resources. The importance of digital change is to improve the efficiency and competitiveness of enterprises, and through digital transformation, enterprises can better utilize human resources, improve employee efficiency and satisfaction, and thus promote the development of enterprises.

The digital transformation strategy of enterprise human resource management includes the use of talent incentive mechanism, optimizing the human resource management system and improving enterprise competitiveness. Digital transformation is not only an inevitable choice, but also a trend for future enterprise development. Through digital transformation, the enterprises can better adapt to the changes in the market, improve the core competitiveness of enterprises and achieve sustainable development.

It is the important carriers and construction bodies of the new quality productivity and new production relations, and are the main force and front-runners in the complete, accurate and comprehensive implementation of the new development concept, playing a leading and dominant role in high-quality development and supporting and guaranteeing modernization<sup>[1]</sup>.

To achieve this goal, the development of new quality productive forces must be taken as an important focus for the high-quality development of state-owned enterprises, and the transformation of enterprises should be driven by scientific and technological innovations and industrial innovations, which will in turn improve the management level and governance effectiveness, and ultimately realize the leap in productivity and core competitiveness, and promote the innovation of products and services as well as the modernization of the management mode.

As an important pillar of the national economy, enterprises play a crucial role in the process of reform and opening up. With the rapid development and application of digital technology, human resource management is also facing unprecedented challenges and opportunities<sup>[2-3]</sup>. How to effectively integrate digital technology and improve the human resource management level of state-owned enterprises has become an urgent problem to be solved at present. Therefore, this thesis aims to explore the implementation path and key strategies of digital transformation of human resource management in state-owned enterprises, with a view to providing reference and inspiration for state-owned enterprises in the process of digital transformation.

## **2 Analysis of the Necessity of Digital Transformation on Human Resource**

### **2.1 Analysis of the Current Situation**

At present, the following problems exist in the human resource management<sup>[4-6]</sup>: the traditional human resource management model has lagged behind the development of the times, the level of human resource informatization is low, and most of the enterprises are still using manual management, which is inefficient; the talent management is not fine enough, and the lack of personalized incentive mechanism makes it difficult to retain the talents; and the management of the enterprise is facing the challenges of asymmetry of information, lagging decision-making, and so on.

In this context, digital transformation has become an inevitable choice for the development. The core of digital transformation is human resource management based on big data, which realizes the refined management of human resources through data analysis and artificial intelligence technology. Digital transformation can improve the efficiency and accuracy of enterprise human resource management, so that enterprises can better understand the needs of employees and develop more personalized incentive mechanisms. At the same time, digital transformation can also help enterprises better respond to market changes and enhance their competitiveness.

Therefore, the enterprises face the importance of digital transformation in the digital era. Through the in-depth analysis of the current situation of human resource management, we can clearly understand the current situation of the enterprise and the existing problems, and provide more targeted strategies and directions for the digital transformation of the enterprise.

### **2.2 The Necessity of Digital Transformation**

Digital transformation is an inevitable trend in the development of enterprises, and with the arrival of the big data era, the traditional way of human resource management can no longer meet the needs of enterprise development. In the process of digital transformation, enterprises need to face the challenge of the transformation of old and new kinetic energy, and gradually change human resource management from traditional manual management to intelligent management. The necessity of digital transformation is mainly reflected in the following aspects.

(1) Digital transformation can help enterprises improve efficiency and reduce costs, through big data analysis and artificial intelligence technology, enterprises can more accurately analyze the work performance and needs of employees, so as to optimize the allocation of human resources and improve productivity.

(2) Digital transformation can enhance the competitiveness of enterprises, through the establishment of a perfect digital human resource management system, enterprises can better attract, train and retain talents, build a talent team with competitive advantages, so as to stand out in the fierce market competition<sup>[7]</sup>.

(3) Digital transformation can also enhance the innovation ability and adaptability of enterprises. In the digital era, enterprises need to constantly innovate and change in

order to adapt to the changing market environment, and digital transformation can provide enterprises with more data support and decision-making basis to help enterprises better grasp market opportunities and make flexible strategic adjustments.

In summary, digital transformation is a necessary initiative for enterprises, and only through digital change can enterprises adapt to the development trend of the times, improve management level and competitiveness, and achieve sustainable development.

Therefore, enterprises must actively explore and practice the strategy of digital transformation, and constantly innovate and improve human resource management methods to adapt to the challenges and opportunities of the digital era.

### 3 Human Resource Management Model and Digital Analysis

#### 3.1 Human Resource Management Model

At present, enterprise human resource management is a systematic work, generally using the 5P model test, which is shown in figure.1. The model includes five basic tasks, namely, knowing of people (Perception), selecting people (Pick), employing people (Placement), educating people (Professional), and retaining people (Preservation), and the content of its expression is shown in Figure 1. The model to “Perception” as a guide, to “Pick” as a guide, to “Placement” as the center, to “Professional” as the driving force, to “Preservation” for the purpose.

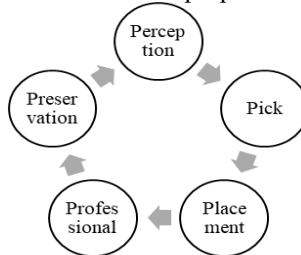


Fig. 1. 5P model diagram

In the above figure, Perception means that the company builds the organizational structure reasonably according to the needs of business management and divides the departments according to the functions. According to the departmental job analysis, develop the company's job description, for each job to choose the most suitable employees. At the same time, the employees as active subjects, fully understand the employee's psychology and behavioral rules.

Pick refers to match the requirements of the work, the company recruits and selects the right employees, in order to choose the right talent, you must fully understand the company's business strategy and business development direction, do a good job of Human resources planning, and scientific methods and assessment to select the right talent.

Placement refers to the reasonable distribution and use of personnel, to find the “people” and “things” of the best combination of the most suitable personnel in the right position to improve the efficiency of the staff and job satisfaction.

Professional refers to the cultivation of talent, the establishment of the training of the investment in the awareness of the training to stimulate the interest of the staff to work through training. Through training to stimulate the staff's interest in work, improve their work quality, planning their careers.

Preservation refers to the establishment of effective incentives and assessment system, the combination of assessment and incentives, through the salary and welfare policies to improve incentives and assessment mechanisms, so that employees in the spirit of dedication, so that employees in the enterprise to obtain a sense of belonging, to prevent the loss of talent.

### 3.2 Corresponding System of 5P Model

In traditional human resource management, each part of the 5P model is completed manually, and it takes a lot of time to realize, while in the era of digitalization and big data, each link can be realized by using a dedicated system, which is shown in Table 1. these systems come with certain analysis and data preprocessing functions, so it can greatly save the cost of human resource management.

**Table 1.** 5P model and corresponding system

No.	5P model part	corresponding system
1	Perception	Measurement and Analysis
2	Pick	Recruitment and Selection
3	Placement	Configuration and utilization
4	Professional	Training and Development
5	Preservation	Evaluation and Compensation

The assessment and analysis system is the core part of the 5P model. It uses advanced assessment tools and data analysis techniques to help companies accurately identify candidates' abilities and potential. These assessment tools usually include psychological quality assessment, career interest test and comprehensive quality assessment, etc. By comprehensively analyzing the strengths and weaknesses of candidates, the accuracy and effectiveness of recruitment can be improved. In addition, through big data analysis, companies can track recruitment trends in the industry and optimize talent pool management.

The Recruitment and Selection System, on the other hand, is an extension of Talent Assessment, focusing on efficiently screening candidates that meet the needs of the enterprise. The system not only automates the screening of resumes, but also ensures that each candidate receives a fair and objective assessment by developing a standardized interview process. The system also supports mock interviews and online tests to further validate a candidate's professional competence and cultural fit before they are finally selected.

After recruitment is complete, the Configuration and Utilization System helps

companies rationalize their human resources. The system utilizes an employee information database to monitor the location, skills and work status of employees in real time, thus enabling effective talent deployment and utilization. Whether it is resource allocation for temporary projects or employee arrangement for permanent positions, the system can provide data support to optimize the efficiency of human resource allocation.

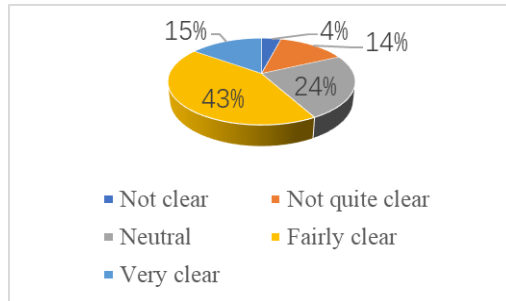
Next, the training and development system focuses on employee growth and career development. The system customizes personalized training plans for employees based on their competency assessment results and job requirements. These trainings can take various forms, such as online teaching, offline courses, and mentoring, to ensure that employees continue to progress in their careers. In addition, the system also supports the evaluation of training effects, helping companies to understand the actual effectiveness of training, so as to continuously improve the training content based on feedback.

Finally, the appraisal and compensation system is the key to enterprise performance management. Through the scientific appraisal system, the enterprise can assess the performance of employees in a fair and impartial manner. The system combines the results of performance appraisal and market salary standards to formulate a reasonable salary system for employees. At the same time, the system also takes into account the employee's career development needs, and motivates the employee's work enthusiasm and creativity through performance rewards and promotion mechanisms.

To summarize, the talent assessment and analysis system contains multiple functional modules such as recruitment and selection, configuration and use, training and development, assessment and compensation, constituting a complete talent management closed loop. Through this system, the enterprise can more efficiently explore, cultivate and retain excellent talents, thus laying a solid foundation for its long-term development.

### **3.3 Key Part Data Analysis**

As shown in section 2.2, the measurement and analysis model is the core part of 5P model, but in corporate human resource management, the measurement and analysis system is generally very imperfect and little understood by individual employees. In order to carry out the study in depth, the results of a survey of four hundred valid questionnaires completed by employees of a company were analyzed. In the company's employees' responses to the question "Do you think the scope of your duties is clear?", it can be clearly seen that close to 20% of the employees are not clear or not very clear about their job duties, while less than 60% of the employees are quite clear or very clear about their job duties, as shown in Figure 2.



**Fig. 2.** Questionnaire survey result

Based on the above analysis, it can be seen that at present, the description of the job duties of the employees in the enterprise is too general and programmed, and fails to clearly define the authority, responsibility and obligation of the incumbent, and the phenomenon of unclear responsibility and shirking of responsibilities when encountering problems has already occurred in the actual work. Secondly, the job description lacks pertinence, manifested in the same name for different manufacturing department of the post, its job duties are actually very different, while the unit of their job description is the same.

## 4 Digital Transformation Strategy

### 4.1 The Application of Talent Incentive Mechanism

Talent incentive mechanism is a crucial part of the digital transformation of human resource management. In the digital era, talent is the most valuable resource of the enterprise, how to effectively motivate and retain excellent talents has become the key to enterprise development.

First of all, enterprises can stimulate the work enthusiasm and creativity of employees by establishing incentive mechanisms, such as salary incentives, welfare benefits, etc., and improve the job satisfaction and loyalty of employees<sup>[8]</sup>.

Enterprises can also provide training opportunities, promotion opportunities and other development opportunities to motivate employees to continue to learn and improve their own ability, so as to improve the quality and competitiveness of the overall organization.

At the same time, enterprises can also through the establishment of a sound performance appraisal system, the employee performance and rewards linked to motivate employees to give full play to their potential, to achieve personal value and corporate goals of benign interaction. In short, the use of talent incentive mechanism is of great significance for the digital transformation of human resource management, which can provide strong support for the integration and development of the enterprise, promote the enterprise to adapt to the challenges of the digital era, and improve the core competitiveness of the enterprise.

Based on the above analysis, the talent incentive mechanism is the key to the digi-

tal transformation of enterprises, through the development of scientific and reasonable compensation system, incentive mechanism and promotion mechanism, to attract and retain outstanding talent, and stimulate the passion and innovation of employees.

## **4.2 Optimization Human Resource Management System**

Optimizing the human resource management system is a key link in the digital transformation. First of all, it is necessary to establish a scientific and reasonable talent recruitment, training, incentive, evaluation and mobility mechanism. Through the introduction of advanced talent management concepts and methods, it can attract and retain excellent talents and improve the enthusiasm and creativity of employees.

Secondly, it is necessary to establish a perfect employee information management system to realize the comprehensive management and monitoring of employee information and ensure the efficient utilization and management of human resources. At the same time, it is necessary to focus on employees; career development planning and training programs to motivate employees to continuously learn and improve their skills to adapt to the needs of digital transformation.

In addition, it is necessary to establish a flexible and diverse compensation and benefit system to motivate employees to be innovative and enterprising, and enhance their sense of belonging and loyalty. By optimizing the human resource management system, enterprises can better adapt to the challenges and opportunities of the digital era, enhance their core competitiveness and achieve sustainable development.

Therefore, optimizing the human resource management system is the foundation of digital transformation, establishing a perfect human resource management process and information system, realizing the digital management of recruitment, training, performance appraisal and other aspects, and improving work efficiency and quality.

## **5 Analysis of the Importance of Digital Transformation**

First of all, digital transformation can help enterprises realize the transformation of old and new kinetic energy. Traditional human resource management methods can no longer adapt to the needs of digital era, and enterprises need to use advanced digital technology to improve management efficiency and employee satisfaction, so as to achieve the transformation of organizational structure and culture.

Secondly, digital change can enhance the competitiveness of enterprises. With the increasingly fierce competition in the market, enterprises need to strengthen talent management and optimize business processes, and improve productivity and product quality through digital technology, so as to achieve sustained growth and development.

Digital transformation can also help companies better meet the needs and incentives of their employees. Through digital technology, enterprises can establish a more scientific and transparent performance appraisal system, motivate employees to actively participate in the development of the enterprise, promote the professional growth of employees and teamwork, and improve employee job satisfaction and loy-



alty.

In summary, digital change is vital to the human resource management of enterprises. Only through continuous development and innovation can we keep pace with the times and improve the competitiveness and sustainable development of enterprises. Therefore, enterprises should recognize the importance of digital transformation and actively take measures to promote the digital transformation of human resource management, so as to inject new vitality and power into the development of enterprises.

## **6 Conclusions**

Starting from the necessity and strategy of digital transformation of human resource management in enterprises, this paper explains the importance of digital transformation for improving the competitiveness of enterprises. In the digital era, the application of big data technology provides enterprises with more human resource management tools and methods, which enables them to manage human resources more efficiently, improve employee efficiency and satisfaction, and thus promote enterprise development.

With the continuous development and innovation of science and technology, the digital transformation of human resource management in enterprises will also continue to improve and upgrade. In the future, we can foresee that the talent incentive mechanism will be more diversified and personalized, the optimized human resource management system will be more intelligent and refined, and the competitiveness of the enterprise will be continuously improved under the impetus of digital transformation. At the same time, the digital era will also bring more new challenges and opportunities, and enterprises need to constantly learn and adapt to new technologies and optimize their management mode to cope with the increasingly fierce market competition.

In summary, the digital transformation of human resource management in enterprises is the inevitable trend of the current and future development of enterprises, and only through continuous innovation and improvement can we better adapt to the development needs of the digital era, improve the core competitiveness of enterprises, and achieve long-term sustainable development.

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