# Research on the application of enterprise human resource management in the big data environment

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**Abstract:** This paper aims to explore the application of enterprise human resource management in the big data environment, analyze the impact of big data on enterprise human resource management, and how to improve the level of enterprise human resources in this environment. Through the discussion of the characteristics of enterprise human resources and the changes brought by big data, this paper finally puts forward some relevant practices, such as the application of big data in talent recruitment, improving and optimizing the relevant planning methods, and following the basic principle of people-oriented, hoping to provide implications for enterprises to enhance the level of human resources.

Keywords: big data environment; Enterprise; Human resource management; application

With the increasing development of big data technology, various fields are actively exploring how to apply big data to improve management efficiency. As a key link, enterprise human resource management also needs to follow the development trend of the times, make full use of the advantages of big data in specific management and optimization links, strengthen management and optimization, and help enterprises develop better.

# 1. The importance of strengthening enterprise human resource management and Optimization in the context of big data

With the popularization of the Internet and information technology, the ability of enterprises to obtain and process data has been continuously improved, and big data has become an essential support for enterprise decision-making and management. In this context, enterprise human resource management is no longer simple personnel management, but requires in-depth analysis and optimization with the help of big data technology.

First, big data can help enterprises better understand employees and the market. Through the analysis of employee personal information, work performance, training records and other data, enterprises can make more accurate decisions on staffing, promotion and promotion. At the same time, big data can also help enterprises better grasp market trends, formulate recruitment and training plans, and improve employees' career development and competitiveness through data analysis of market conditions, talent supply and demand and other fields. Secondly, big data can help enterprises improve the efficiency of human resource management. In the traditional personnel management, enterprises need to spend a lot of time and manpower on recruitment, training and performance evaluation. Big data technology can significantly improve the efficiency of this work, reduce the cost of workforce and time, and improve the quality of enterprise human resource management. Through the analysis of employee performance, education background, ability structure and other data, enterprises can more accurately understand the actual situation of employees, formulate more scientific talent strategy and management plan, and improve the pertinence and effectiveness of management. In addition, big data can also help enterprises find potential problems and needs of employees, timely solve and meet the needs of employees, and improve employee satisfaction and loyalty, so as to promote the sustainable development and innovation of enterprises.

#### 2. Discussion on the characteristics of human resources in Enterprises

Enterprise human resources refer to all kinds of human resources assets owned by enterprises, including employees and managers. In the big data environment, the characteristics of enterprise human resources show flexible and personalized management characteristics.

First of all, enterprise human resources have the characteristics of flexible management. In the past, human resource management in enterprises was often based on fixed positions, positions and work processes, which lacked flexibility and adaptability. However, in the era of big data, enterprises can analyze employees' work performance, career development, training needs and other data through big data technology to understand employees' personalized needs, and provide employees with more flexible and adaptive work methods, training and promotion opportunities based on employees' needs and personalized characteristics, so as to better stimulate employees' potential and creativity. Secondly, enterprise human resources have the characteristics of personalized management. In the era of big data, enterprises can analyze employees' personality characteristics, skills, knowledge structure and other data through big data technology, and formulate personalized career development and training plans for employees. This management method can be more specific to the customized needs of employees, help employees better play their professional advantages, and improve their career development and competitiveness.

In general, the flexible and personalized management of enterprise human resources is the trend and focus of enterprise human resources management in the era of big data. In the era of big data, enterprises should collect, analyze and use employees' personalized data through big data technology to provide employees with a more flexible and adaptive working environment and training opportunities, so as to better mobilize the enthusiasm and creativity of employees and improve the competitiveness and market position of enterprises.

#### 3. Changes in human resource management brought about by big data environment

3.1 The change in the concept of human resource management

Traditional human resource management mainly relies on experience and intuition, while the era of big data has introduced macro elements such as digitalization and digitization into the management level, making the decision-making basis of human resource management more precise, objective and accurate, and the management idea more standardized and scientific. In addition, the application of data analysis and prediction technology makes human resource management pay more attention to data-driven and result-oriented, improving decision-making accuracy and effectiveness.

3.2 Progress of human resource management technology

In the big data environment, various human resource management software and tools are developing rapidly, such as talent recruitment management system, training management system, performance management system, etc. These software can not only process information quickly and accurately, but also conduct in-depth data mining and analysis, providing enterprises with more comprehensive and accurate human resource management services.

3.3 Diversification of human resource management content

In the big data environment, the behavior and business of enterprises are dominated by a large amount of data, which makes the content of human resource management present a diversified trend, such as corporate culture construction, labor market analysis, performance management, etc. These diversified contents can help enterprises better manage human resources and improve work efficiency and quality.

3.4 Specialization of human resource management talents

Due to the development of big data technology, the work and content of human resource management have become more refined and specialized, so higher requirements are put forward for the professional quality and ability of human resource management talents. In addition to mastering various human resource management software and tools, human resource practitioners also need to have data analysis and decision-making ability, team cooperation ability, communication and coordination ability and other skills.

#### 4. Relevant measures to improve the level of enterprise human resources in the era of big data

4.1 Application of big data in talent recruitment

Big data is widely used in enterprise human resource management, and talent recruitment is one of the key application areas. In the era of big data, enterprises can use big data technology to recruit talents, so as to improve the efficiency and quality of recruitment. In this regard, the following are some specific examples: analyze the resume and application performance of candidates with the help of big data: enterprises can understand the quality and ability of candidates by analyzing the résumé and application performance of candidates, and screen more suitable candidates according to these data; Use social network analysis to obtain more reliable talent References: enterprises can analyze social networks through big data to obtain more reliable talent references, so as to better predict the performance and ability of candidates; Using intelligent interview system: enterprises can use big data technology to develop intelligent interview system. These systems can provide more scientific recruitment suggestions by analyzing the interview situation, so as to effectively improve the recruitment results. In short, applying big data in talent recruitment can greatly improve recruitment quality and efficiency, making enterprise recruitment more scientific and accurate.

4.2 Improve and optimize relevant planning methods

In the big data environment, enterprises need to improve and optimize the relevant planning methods to better cope with the challenges and opportunities in human resource management. Specifically, this includes the following three aspects:

First, use data analysis to predict human resource demand. In the big data environment, enterprises can predict the future demand for human resources by analyzing historical data. This can help enterprises better plan the recruitment plan and adjust the personnel structure to meet future market demand. For example, suppose a catering enterprise hopes to launch a new product in the next three months. The enterprise can use big data technology to analyze historical data and predict the sales of this new product, so as to adjust the personnel structure to better cope with the peak sales;

Second, use data analysis to evaluate employee performance. Big data technology can help enterprises evaluate employees' performance more scientifically. Enterprises can use big data technology to evaluate employee performance from multiple dimensions, such as sales, customer satisfaction, work efficiency and so on. Through this method, enterprises can more accurately understand the actual performance of employees, so as to better formulate training and incentive plans, and improve the work efficiency and performance of employees. For example, on the Internet platform, employees' sales and customer evaluation can be analyzed through big data technology to evaluate employees' performance and service quality;

4.3 Follow the basic principle of people-oriented

In the era of big data, the human resource management of enterprises needs to reconstruct the personnel structure, so as to follow the basic principle of people-oriented. This can help enterprises better meet the market demand, achieve the company's long-term goals, improve the competitiveness of enterprises, and enable employees to better adapt to the changes and development of enterprises, and improve the overall efficiency of enterprises.

First, restructuring the personnel structure requires optimizing the organizational structure of the company. In the traditional organizational structure, there are often problems of unreasonable position setting and the lack of corresponding talents for some important



positions, which lead to low efficiency of enterprises, excessive workload of employees and lack of sense of security. Therefore, enterprises can assess the operation of various departments of the company through big data technology and in combination with their own business needs, and on this basis, formulate a more reasonable organizational structure, re-plan the position setting, and provide better career development opportunities and promotion space for employees. Secondly, restructuring the personnel structure requires re-planning the company's human resource allocation according to the strategic objectives and market demand of the enterprise. In traditional human resource management, the balance of each department is often considered, and the differences in the human resource needs of different departments, reallocate and reallocate the company's existing human resources, so that employees can get appropriate training and development opportunities at different stages. For example, through data analysis, enterprises can find that there is a lack of talents matching the new market development in their sales team, so enterprises can introduce or cultivate more new market development talents to enhance their market competitiveness.

In general, restructuring the personnel structure is an important link for enterprises to realize human resource management in the era of big data. Only when enterprises can scientifically and reasonably plan the organizational structure and human resource allocation according to their actual needs and long-term development goals, can they achieve the effect of optimizing human resource management and improving the competitiveness of the whole enterprise.

## 5. Conclusion

To sum up, big data is of positive significance to the improvement of enterprise human resource management level. Therefore, relevant personnel of enterprises should have a correct understanding of the big data environment, and be able to apply big data to human resource management through scientific, reasonable and efficient methods, so as to make outstanding contributions to the sustainable and high-quality development of enterprises. In practice, we can help enterprises improve the level of human resources through the application of big data in talent recruitment, improvement and optimization of relevant planning methods, and following the basic principle of people-oriented. We believe that with the support of big data, enterprise human resource management will usher in a more considerable future.

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