Application of Information Technology in Human Resource Management

Jun Wang* and He Ma
School of Information and Business Management, Dalian Neusoft University of Information, Dalian, China

*Corresponding author e-mail: wangjun_xg2@neusoft.edu.cn

Abstract. With the increasingly fierce competition for talents, the continuous development of information technology, and the penetration of big data into various industries, human resource management has to think about the changes in information technology. It is necessary to explore the application of big data in human resource management to carry out more comprehensive and scientific human analysis, therefore it is necessary to explore the application of information technology in human resource management. In this context, this article discusses the combined application of big data analysis and human resource management, in order to provide some reference for the development of enterprise human resource management.

Keywords: Big Data, Human Resource Management, Innovative Talents

1. The Background of the Application of Information Technology to Human Resource Management

1.1. The Need for Data Analysis
At present, more and more fields have introduced informationized data analysis, but the data analysis of human resource management has not received much attention. However, with the development of the current era, any field and industry need to carry out corresponding data analysis, and human resource management also needs it. Changes in business models can be adjusted based on the results of data analysis. The attraction and retention of talents in human resource management also requires data analysis [1-4].

1.2. Data-based Changes in the Labor Market
In the traditional labor market, employers and employees are relatively restricted in terms of search platforms and channels. Employers search for limited employee information, and employees are limited in suitable positions. However, with the development of technologies such as the Internet and big data, not only employers can quickly search for a large number of job candidates through various recruitment data platforms; employees can also search for suitable and suitable companies and companies on various data platforms. Corresponding post. Moreover, the transparency of platform data makes the labor market more competitive [1-4].
1.3. Changes in Employees' Own Situation
In the past, the stability of company employees was relatively good, and the loyalty of employees was generally relatively high. But nowadays, the company has frequent personnel turnover, and employees are uncertain in their psychology and planning. The company's employer brand image is becoming more and more important. In the information age, how to use scientific data analysis to explore the stability of employees and propose corresponding solutions to achieve the stability of the company's personnel is an important task of human resource management [1-4].

1.4. Human Resource Management is Facing Informatization Challenges
With the advent of the information age, human resource management is also facing changes from the decision-making level, the organizational structure level, and the talent management level. These must rely on the information analysis of big data to predict and analyze all levels of human resource management. In order to make the plan more scientific and reasonable, and to make human resource management more effective. Informationized human resource management is inseparable from the human analysis of various modules and the application of various information technology. This is the change that human resource management must make in the context of the information age [1-4].

2. Application of Information Technology in Human Resource Management
The main difference between the application of informatization big data in human resource management and traditional human resource management lies in the use of various data in the past, corresponding analysis of the development trend of the work of each module, summary and discovery of problems in the work, timely adjustments to achieve more Targeted human resource management [5].

2.1. Human Resource Planning Analysis
Human resource planning has broad and narrow meanings. The broad meaning is to predict future organizational tasks and environmental requirements for the organization according to the organization’s development strategy, goals, and changes in the organization’s internal and external environment, and to fulfill these tasks and meet The process of providing human resources for these requirements is equivalent to a human resource management strategy; the narrow meaning is to predict the possible personnel requirements and supply situation, and to reserve or reduce the corresponding human resources accordingly. It aims at pursuing the balance of human resources, and it focuses on the matching of the quantity, quality and structure of human resources. The application of big data informatization to human resource planning can analyze human resource supply and demand data more scientifically and carry out more accurate human resource planning. The combination of big data and human resource planning requires the collection of corporate human resource data and market-related human resource data [6-13].

2.1.1. Enterprise internal data analysis. First, it is necessary to collect the current status of the supply and demand of personnel within the enterprise, including internal mobility and turnover, and use the basic personnel data as the basis for subsequent big data analysis. Second, analyze the difference between the company's human resource planning in the past and future human resource planning, and determine the specific human resource planning strategy through strategic orientation analysis. Third, collect the work information of employees in various parts and positions of the company, especially work-related attitudes, performance and other information, and comprehensively obtain the urgently needed talent needs of the company, and retain the best talents to better complete the work of the company[6-13].

2.1.2. Labor market data analysis. In addition to all aspects of internal human resource information, the human resource planning of an enterprise must also understand external labor market information. Enterprises can collect market competition data in the same industry and in the same position to
predict the future direction of labor market personnel, make corresponding human resource planning in advance, and ensure the market competitiveness of key positions of the enterprise [6-13].

2.2. Human Resources Recruitment Analysis
Recruitment refers to the process of attracting those who are capable and interested in working in the organization based on the results of human resource planning and job analysis in order to meet the needs of development, and selecting suitable personnel for recruitment. The application of big data analysis to human resource recruitment mainly lies in the effective implementation of data analysis in the recruitment selection process, especially the improvement and perfection of the test selection process. Only by selecting the right people, can the enterprise not only give full play to the advantages and potential of talents, but also realize the value creation of talents in the enterprise. Big data analysis technology can extensively and comprehensively collect all the data of the recruitment implementation process, especially the effectiveness of the methods used in the talent screening process, and even the effectiveness of each screening dimension, each screening standard, and each screening question. Sex. Through systematic data analysis, the most effective screening methods for different positions are refined and summarized, so as to well predict the work status and performance of employees after entering the company, tap the potential of employees, and truly realize the scientific effectiveness of human resource recruitment [6-13].

2.3. Human Resource Performance Analysis
Performance management is a management process that enables organizations, teams and individuals to achieve better work results based on mutual understanding between employees and managers on goals, standards and required capabilities. That is, the means and processes used by managers to ensure that employees' work activities and work outputs are consistent with the organization's goals. Traditional human resource performance management is often carried out in four links: performance planning, performance implementation and coaching, performance evaluation, and application of performance results. After designing a plan in accordance with organizational performance, departmental performance, and individual performance, implement, evaluate and evaluate. After the introduction of big data analysis into performance management, the company will not only retain the original performance management links, but also improve the application combination of big data and performance management. The performance management activities carried out in accordance with the performance plan will be affected by the specified performance plan, and the effectiveness needs to be examined and evaluated. The intervention of big data analysis enables the company to extensively collect data on the entire process of performance management of employees, including objective data such as sales volume, customer satisfaction, etc.; comprehensive data on the implementation of employee performance, including emails to communicate with customers, performance consulting data, Personal training data, etc.; hierarchical statistical analysis of employee data to formulate different performance management systems; various employee attitude data, such as engagement, enthusiasm, values, and company evaluation data. Through the above analysis, performance management combined with big data analysis is no longer limited to the original three-tier management, but through a full range of data to achieve the initiative of performance management[6-13].

2.4. Human Resources Retention Analysis
The role of retention in human resource management is the work of the salary and benefits management module, but today's employee turnover and retention can no longer be limited to thinking in this area. Big data analysis can be used to find a more comprehensive way to retain talent method. Talent retention is inseparable from employee motivation. Therefore, companies can use information tools to collect a wide range of employee retention and motivation data, such as employee career planning data, promotion data, development opportunity data, fairness data, and personal development bottlenecks. Problem data, data on trust in the company, etc. Through the collection of the above
information and data, the use of information-based data analysis tools to find the reasons and factors that lead to the brain drain, so as to improve the company's employee incentive plan and training plan, increase the employee retention rate, and minimize the loss caused by the brain drain [6-13].

3. To Sum Up
The development of human resource management inevitably needs to keep up with the trend of the information age, use big data analysis to deepen the work of various modules, realize the informationization of human resource management, and realize the informationized human analysis, making human resource management more scientific and accurate.

Acknowledgments
2018-2019 Liaoning Science and Technology Innovation Science and Technology Think Tank Project, Liaoning Province Science and Technology Talents Innovation and Entrepreneurship Ecological Environment, project number LNKX2018-2019C37.
2020Major (Key) Issues of Dalian Federation of Social Sciences, Research on the Cultivation and Incentive Mechanism of Technological Innovation Talents in Dalian, project number 2020dlskzd322.

References
[1] Liu Qing. Discussion on the New Trends and Strategies of Human Resource Management in the "Internet +" Era[J]. Trade Fair Economy, 2020, (14): 93-95.
[2] Yu Zhenbing. Innovative measures for enterprise human resource management in the era of big data[J]. Marketing circles, 2020, (51): 154-155.
[3] Du Xiaoming, Wang Fushuai. Exploring the reform of enterprise human resource management based on the era of big data[J]. China Business Review, 2020, (23): 115-116.
[4] Yu Dongmei. The influence of the popularization of big data analysis technology on traditional human resource management[J]. Trade Fair Economics, 2020, (13): 83-85.
[5] Cui Xiguuo. Research on Enterprise Human Resource Management in the Big Data Era[J]. Finance and Economics, 2020, (35): 255-256.
[6] Sheng Huating. Research on smart human resource management based on big data perspective[J]. Enterprise Reform and Management, 2020, (22): 99-100.
[7] Yu Hui. Research on enterprise human resource management based on big data[J]. Business News, 2020, (33): 195-196.
[8] Xu Shanshan. Challenges and reflections on enterprise human resource management under the background of the new era[J]. Liaoning Economics, 2020, (11): 46-47.
[9] Yang Min, Li Shuqian, Wang Xiaomin, He Yun. Human Resources Big Data Quantitative Analysis and Management[J]. Information System Engineering, 2020, (11): 56-57.
[10] Ning Meina, Sun Xiaomei. Research on Enhancement of Human Resource Management Practitioners' Ability in the Big Data Era[J]. Marketing Circle, 2020, (47): 190-192.
[11] Yuan Xiying. Analysis of Enterprise Human Resource Management Reform in the Big Data Era[J]. Marketing Circle, 2020, (47): 164-165.
[12] Huang Ruimin. Thoughts on human resource management reform in the era of big data[J]. Modern Business and Trade Industry, 2020, 41(34): 39-40.
[13] Jean Paul Eisen, Jesse S. Halliott. Human resource management big data: change the way you attract, hunt, train and retain talents [M]. Machinery Industry Press, 201909.