

Review and Prospect of the Combination of Human Resource Management and Big Data in Enterprises

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Abstract. The rapid development of big data has successfully served all walks of life. In the aspect of human resources management, capacity data, potential data and so on are complex and complex. They are only based on artificial assumptions and have large errors. With the support of big data analysis, we can not only plan the recruitment of talents to avoid the mismatch between the position and the supply of talents, but also make reasonable forecast and arrangement for the needs of departments and employees. In addition, we can optimize and improve the job evaluation and reward system according to the data of employees and departments. At the same time, this paper also puts forward the prospects of big data in the direction of human resources, including using previous experience data to plan the career of new recruits, or using previous work experience data to predict the potential of new recruits.

Keywords: big data, human resources management, prediction and optimization, work experience data.

1. Big Data in Human Resource Management

Human resource management includes six modules [1]: human resource planning, recruitment and allocation, training and development, performance management, salary management and employee relationship. The six modules are closely related and interlinked, which play a vital role in the human resource decision-making of enterprises. With the advent of the Internet era, the research on big data is increasing day by day. Big data penetrates into all walks of life at an alarming rate, changing people's working methods and lives. For big data, there is no precise definition that confines it to only one area. Gartner describes big data like this: "Big data" is a kind of information asset that makes use of new processing mode to make itself have better decision-making power, more accurate insight and higher accuracy. It has the characteristics of large amount of data, various types of data and high growth rate. The strategic significance of big data lies not only in its vast and varied databases, but also in the specialized, targeted and operable processing of a large number of data information. In other words, if we compare big data to an industry, the key to the benefit of this industry is how to process these information resources. By improving the information processing ability of the industry, we can endow the data with "soul", make it more valuable and provide greater benefits for the industry. Tang Kuiyu, a Chinese scholar, believes that today's society is moving towards the stage of "Big Data Human Resource Management". He can apply management thinking and methods in the field of Big Data to many aspects of human resource management. For example, in the recruitment, training and development of special talents, as well as performance management evaluation and labor relations processing, we should promote the scientificization and informationization of the employment system [2]. More people believe that big data is expected to become the follow-up development module of human resources management, providing a solid and powerful data support for each other module, and promoting the renewal and derivation of human resources management system [3].

2. Typical Application of the Combination of Big Data and Human Resource Management

After a period of exploration, the application scope of big data in human resources management is gradually expanding. It can not only supervise the recruitment of talents and optimize the allocation

of employees, but also forecast the demand of talents to ensure the sufficient supply of enterprise personnel. Based on massive data, it can make a fair job evaluation for enterprise employees and put forward the direction of efforts:

2.1 Recruitment and Allocation of Talents for Big Data Supervision

In the previous recruitment process, enterprises often use many traditional ways, such as Internet recruitment, media advertising recruitment, headhunting company recruitment, internal recruitment, on-site job fairs and so on. There are some drawbacks in these recruitment methods, either the number of job seekers cannot be controlled or the quality of recruiters cannot be ensured, some recruitment methods can also lead to factions, lack of differentiated suggestions in organizational decision-making, which are not conducive to the development and innovation of enterprises [4]. The key to controlling the quality of job seekers in traditional recruitment methods is that they can only understand some superficial information of job seekers from some materials, such as semi-structured data such as professional categories, social practice experience, etc., but they cannot understand in depth the factors that are crucial to the development of enterprises, such as professional knowledge, professional accomplishment and operational ability of job seekers. It is not known that the rate of promotion and the time limit for performance completion. Based on the promotion of big data, a new form of recruitment using social network data flexibly has gradually attracted the attention of enterprises.

With the development of the times, people spend more and more time on social networking. With the increase of the frequency of use, the relevant information that social networking can collect also increases, and the amount of data becomes more and more huge. It also gives managers a glimpse of the dawn that social networking can help them form a comprehensive analysis and recognition of recruiters with the help of personal information already available in social networking, such as work experience, life status, personality characteristics, decision-making efficiency, overall planning ability, plasticity and so on. Using large data in social networks, HR department can directly obtain various data of job seekers, many of which can be directly applied to human resources management. With a large amount of data to support, managers can make more accurate judgments on job seekers and understand the actual situation of job seekers from many aspects. This will not only help managers to better grasp the matching degree between job seekers and enterprise posts, but also improve the objectivity of information obtained, thus greatly improving the efficiency of human resources department. In the big data environment, the selection of enterprise talent recruitment can not only avoid seeking personal gain through power brought by internal recruitment, but also effectively reduce the "blindness" in the selection of talents. For employers, the key to using big data in social networks is not only to collect massive data information, but also to use cloud computing technology to screen this information, eliminate useless information, and analyze job seekers and their positions more pertinently.

2.2 Big Data Predicts Employee Demand in Enterprises

Today, the dramatic changes in the world economic system have brought both opportunities and challenges to the development of enterprises. With the shortening of technological innovation cycle, the development of enterprises at anytime and anywhere contains certain uncertainties, which means that enterprises must make timely adjustments to the scope of business and make reasonable arrangements for the structure of enterprise personnel [5]. Once the scope of business changes dramatically, enterprises will face huge talent vacancies. If there is no good talent reserve or timely recruitment of new technology talents, the profits of enterprises will not be enlarged and good opportunities for development will be missed. The forecasters tools used by traditional enterprises mainly include expert forecasting, regression analysis, trend analysis and ratio analysis, etc. There are larger subjective components in making decisions. In this situation, it is necessary to introduce big data to make a reasonable forecast of future industry trends. On the one hand, the big data can analyze the future industry situation, adjust the scope of business according to the characteristics of enterprises, define the medium and long-term talent demand, and do a good job of talent reserve in

advance; on the other hand, the human resources department can use the position information over the years to analyze and forecast the demand of personnel, and balance the staffing of enterprises through recruitment and job transfer in time.

Using big data to collect information inside and outside the enterprise extensively, on the basis of understanding structured and unstructured data such as employees' basic situation, education background, hobbies, business expertise, combined with data such as working ability, performance results and potential level, HR department can make objective overall planning for employees, make evaluation and forecast for employees of various departments. The possibility of personnel mobility, at any time to predict job demand, and thus to arrange recruitment and internal training. Human resources departments should grasp the current trend of big data, improve traditional personnel decision-making methods by using big data.

3. Prospect of Big Data Application in Human Resource Management

So far, big data has been applied to human resources management from many aspects, but it is far from enough. Big data is growing at an alarming rate, penetrating into all aspects of social life, from the business sector to the management industry, there is no shadow of big data. At the same time, the wide application of big data also shows that the combination of human resource management and big data has not been developed to maximize, and it still has a very considerable application value. For example, enterprises design and develop career planning system based on big data to improve the shortcomings of traditional career planning system. In data collection, managers should not only understand the basic information of employees' current position, promotion intention, medium-term and long-term development planning, but also evaluate employees' ability and development potential on the basis of large data, collect relevant data of various career planning, extract rough and refine, remove false and retain true, so as to achieve the effect of effective development of enterprise talent resources. This will help managers to grasp the behavior of employees more comprehensively, help employees to arrange the most suitable positions for him, and truly achieve the goal of "making the best use of people", perseverance and non-waste. Reasonable use of large data resources can also achieve the effect of liberating human resources management labor at the grass-roots level, so that they can be liberated from some simple mechanical work, not only can improve the accuracy of the work, but also can save labor resources. In addition, data analysis can also be used to make various possible attempts, such as the analysis of what incentives employees can better improve efficiency, under what intensity of work can better ensure performance, employees at all levels are suitable for that leadership style.

4. Conclusion

The data extracted from human resources management system can accurately predict the overall planning, recruitment, employee potential prediction and development, and performance appraisal effect, perfect optimization, rational planning, and on this basis, look forward to a deeper combination and application.

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