Application of Big Data Technology in Enterprise Human Resource Configuration Strategy

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Abstract: The traditional human resource management method has been difficult to meet the development needs of today's enterprises. Therefore, in order to solve the problems in the human resources management of enterprises and improve the level of human resources management under the influence of the big data era, it is necessary to change the human resources of enterprises. Management method. This paper expounds the theory and characteristics of big data, analyzes the important impact of big data technology on the human resources management of enterprises, and the problems and current situation in the current human resource management work. The feasibility analysis of the application of big data related technology in the human resource allocation of enterprises is carried out, and corresponding strategies are proposed for related problems. The application of big data technology has important practical significance for fully grasping the current development of the enterprise and improving the performance management of human resources.

1. Introduction

The advent of the era of big data has provided convenience for people to live, work and produce, and it has also intensified market competition. Enterprises want to achieve long-term survival in the fierce competition, must comply with the era of big data, keep pace with the times, and change the business model[1]. Under the development of the era of big data, data is not only the content that needs to be analyzed and processed, but more importantly, people need to use special ideas and means to collect, organize and analyze the data footprint from a large number of seemingly messy and complicated data to support social life prediction, planning, and decision support in the business sector. The various characteristics that have emerged have brought about earth-shaking changes to the enterprise[2]. The traditional human resource management method has been difficult to adapt to changes in society, which in turn affects the thinking of strategic decision-making and the way employees work. As an important part of enterprise management, human resource management is also a key link in the traditional management of enterprises, which has a profound impact on the future development of enterprises[3]. Enterprises urgently need high-quality talents who can understand and use data, and human resources management as a company's talent introduction, training, and assessment departments cannot stay out of the way[4]. Applying big data technology to the human resource management of enterprises helps the relevant departments of the enterprise to make human resource management decisions reasonably and effectively, which helps to reduce the investment cost of enterprises[5]. Utilize the value of big data technology to promote the innovation of human resource management and improve the management efficiency of human resources. Therefore, in response to the era of big data, enterprises should change their own human resource management and build a more complete human resource management system to enhance their market competitiveness.

2. Overview of big data theory

2.1 The meaning of big data

Big data comes from Apache Org's open source project Nutch, which is used to describe the set of data needed to update the network[6]. Big data is generally used to define and describe the
massive data generated by the information explosion era. It is so large that it cannot be obtained and organized into information that can be used by people in a reasonable time. It is massive, diverse, high-speed, and easy. Degeneration, huge data value, authenticity and strong association characteristics[7]. The application of big data requires three changes in thinking: all data samples are needed instead of sampled data. Nowadays, there is a powerful enough data collection and processing capability sample analysis mode to the full data analysis mode transformation will bring us more useful information[8]. Focus on complexity, integrity rather than accuracy and focus on relevance Non-causal relationship.

2.2 Big data characteristics

1) The integrity of the data sample. The basic feature of the era of big data is the large amount of data. People in the digital age, from the food and clothing to the education, medical care, entertainment and other links, are recorded in words and deeds[9]. Especially with the advent of the media era, the widespread use of social platforms has made the public not afraid of self-disclosure, and even used the self-media platform to actively display their own living conditions, forming a huge data resource[10]. At the same time, in addition to the presentation of explicit content such as personal information that is publicly disclosed by the public, the data age also records countless hidden information resources that the public itself cannot perceive. These conscious explicit data are shared with unconscious hidden information. It has created a huge sample of data in the era of big data, which can be recorded and analyzed by humans.

2) Diversity of data content. The content of information presented by big data is not only large in volume, but also in a variety of information, and the information is embodied in rich forms of text, images, audio, video, etc., so that the data content can be continuously extended. Therefore, the diversity of data content is yet another feature of big data. The diversity of data content challenges data acquisition and analysis techniques. Not all data content can be “used by me” directly through data collection technology. Although data collection technology enables people to access rich data resources, it does not help people identify useful data and useless data or even harmful data.

3) Correlation of data results. Before big data, people's understanding of things is based on empirical judgment, relying on logical argumentation to determine the causal relationship between things. In the big data environment, the relationship between data is getting people's attention, rich data. After the information is integrated, analyzed and processed, the original appearance of the event can be more realistic and comprehensive. The correlation between the data also enables people to discover the potential laws and values between things, and then scientifically predict the future.

2.3 The practical significance of big data technology to enterprise human resource management

(1) Enhance the core competitiveness of the company. In the context of the era of big data, companies can only use data and information scientifically and reasonably in order to be in an invincible position in the fierce market competition environment. The first step is to accurately grasp the objective changes of the market and find effective data from complex and diverse data. The message enhances the ability of information acquisition and achieves a benign development in the industry competition. The extraction of these data is subject to the human resources management department, and in this scope, the human resource management work is highly valued, so that the application of human resources can be carried out efficiently and reasonably.

(2) In line with the objective development law of the market. With the continuous improvement of the establishment of the market economic system, China's economic globalization and integration trend is strengthening. Faced with the impact of Western products in the Chinese market, enterprises must use talents reasonably and introduce high-quality human resource management. Talents occupy an active position in the market and realize a management model that uses talent to promote development. In the context of big data and the times, talents must be introduced and applied according to specific needs, which are reflected in different positions to solve problems encountered by enterprises in development.
(3) Ensure that management tools are diversified. When carrying out human resource management work, enterprise management personnel build a systematic data modeling process through the relevant functions of big data, improve the optimization management system, formulate reasonable and effective goals, and efficiently allocate human resources of enterprises (see in Table 1).

Table 1 shows the concrete manifestation of big data technology in enterprise human resource management

<table>
<thead>
<tr>
<th>Reflect</th>
<th>Content</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw data</td>
<td>Employee basic information including employee age, education, professional level, work experience, job status, etc.</td>
<td>These data record the original ability of employees in all aspects, which truly reflects the personal qualities of employees, and can give objective reference to human resources management departments in the process of talent recruitment.</td>
</tr>
<tr>
<td>Capability data</td>
<td>Including employee training experience, length of training, training assessment, efficiency of problem solving, rewards and punishments, etc.</td>
<td>It can play a huge role in the evaluation of the pre-employment training effect of the staff for the human resources management department, and help the human resources management department to objectively understand the learning effect of the employees.</td>
</tr>
<tr>
<td>Efficiency data</td>
<td>Including employee work task completion efficiency, single task completion time and other information</td>
<td>Through these data, you can accurately understand the work efficiency of workers in the enterprise, and scientifically develop a human resource training plan.</td>
</tr>
<tr>
<td>Potential data</td>
<td>Including employee productivity improvement rate, career improvement rate, performance improvement rate, etc.</td>
<td>These data can objectively reflect the improvement of employees' labor efficiency, the improvement of labor effect and the continuous growth of labor capacity, and help human resources management departments optimize the human resources allocation of enterprises.</td>
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</table>

3. Feasibility Analysis of Applying Big Data in Enterprise Human Resource Allocation

3.1 The necessity of applying human resources to the application of big data in enterprise

(1) Problems in the management of human resources in traditional enterprises

The employment concept of most enterprises in China is relatively backward. Especially in China's private enterprises, the family management method is still relatively common. In the process of selecting talents, blood relationship and loyalty often become the main evaluation basis. This way has seriously hindered the development of talents, making it difficult to improve the management level of enterprises, and the enthusiasm of some new employees will be severely hit. Secondly, in some state-owned enterprises, due to insufficient supervision, the phenomenon of black-box operation is more common in the process of talent selection. The existence of this problem has severely restricted the vitality of enterprises and hindered the development of enterprises, causing huge losses to the country and society. In the process of operation, there is often a phenomenon of personnel transfer. The traditional method of adjusting posts is often difficult to be fair and open, and the matching of employee characteristics and job requirements is reduced. In daily work, it is difficult for the human resources department and the front-line staff to form an in-depth understanding. Therefore, in the process of adjusting the post, the main reason is the
evaluation of the employees by the supervisor. This kind of evaluation method relies too much on
the subjective judgment of managers, and it is difficult to avoid the influence of factors such as
human feelings and personal preferences. At the same time, supervisors often lack professional
knowledge of human resources, and it is difficult to apply advanced talent management concepts in
the process of selecting talents. These backward management concepts make it difficult for
enterprises to find management talents with big data analysis capabilities, which hinders the
application of big data analysis in enterprises. At the same time, due to the limitation of the concept
of employing people, the necessity of applying big data for human resources management is
suspected. The existence of these problems has jointly restricted the application and promotion of
big data systems.

(2) The main challenge of applying human resources management to big data
No matter how large a company is, the amount of data that can be obtained is limited, and it is
difficult to compare it with a large volume of large databases. The incompleteness of such data can
cause prediction bias and affect the decision-making effect. Applying big data is inseparable from
professional data experts and leading data processing technologies. For SMEs, data processing
within the enterprise is economically and technically difficult, which has led to a series of HR
advisory and outsourcing organizations that provide high-quality data services for their businesses
through their professionalism. The solution has achieved remarkable results. However, although a
single enterprise does not own big data, it can import external data or purchase data research results
by setting a network interface, and indirectly connect with big data. The more information a
company collects, the more important it is to maintain security. Once the information of enterprises,
employees and customers is obtained by criminals, it will bring immeasurable consequences, but it
will affect the harmony between departments and employees, causing troubles for customers, and
leaking trade secrets and causing major losses. To this end, enterprises must establish a sound data
management system, build strong protection measures, prevent data leakage, misuse and abuse, and
ensure data security.

3.2 Current Status of Human Resource Management under Big Data Technology

1) Lack of attention to human resource management changes. In the big data environment, the
management change of the enterprise has been accelerated, but it seems that the management effect
and the effect of production and operation are not ideal. At the same time, in the era of big data,
enterprises need to increase their human and material resources. However, enterprise managers lack
understanding of the importance of human resource management reform, and are reluctant to invest
too much in human and material resources. They still continue the traditional management methods
and business concepts. The development in the industry is backward (as shown in Figure 1). In this
regard, enterprise management personnel should actively change their minds and ideas. The
application of any technology will inevitably increase investment in the early stage, but its value
and impact are immeasurable. Active and big data integration to promote human resource
management reform is hard reason.

2) The management concept is backward. Affected by traditional management concepts, modern
enterprises lack understanding of human resources management under big data, and are accustomed
to applying traditional management methods. The management model is backward, the
requirements for employees are too high, and job evaluation is single. At the same time, production
equipment is difficult to meet the production needs of enterprises, lack of humanized embodiment,
seriously affecting human resource management.

3) Lack of new technology and talent support. Under the conditions of big data, it is necessary to
have advanced technology and talent support to realize the transformation of human resource
management. People are an important part of human resource management, and also the core of
business development, while technology promotes human resource management innovation and
business operations. However, at this stage, most enterprises do not have new technologies or
professional talents, and it is difficult to change the human resource management model.
3.3 The feasibility of applying big data to enterprise human resource management

In recent years, the concept of big data has been widely publicized, and more and more large, medium, and small enterprises are using big data for human resource management. The human resources management department is the distribution center of enterprise personnel information. The employee files, department positions, training records, performance appraisal, salary and other information are collected, stored and used by the human resources department. The data source is reliable, easy to obtain, and can be processed a little. use. Under the call of the trend of the times, a large number of professional big data talents and big data companies emerged in the society, and the number continues to grow. Enterprises can connect with big data through various channels. Exploring the application of big data technology in the field of human resource management, trying to create unique and lasting talent competitiveness by virtue of big data is the winning way for enterprise development.

4. Effective Application of Big Data Technology in Enterprise Human Resource Allocation

4.1 Innovative human resource allocation concept

In the context of the era of big data, enterprise human resource management needs to adapt to the development trend of the times. Managers keep pace with the times and change their traditional ideas and concepts, correctly understand the challenges of human resource management in the era of big data, and innovate their own management idea. Human resource decision-making runs through the entire process of enterprise human resource management. Whether it is the determination of human resource planning and the confirmation of job responsibilities, or whether to decide whether to recruit a new round of personnel or adjust employee compensation and benefits, human resource decision-making is required. Big data technology has greatly advanced the development of HR-BI (human resource business intelligence), using business intelligence to process human resource data and provide decision support to help human resource managers make scientific decisions. Human resource management occupies an important position in the enterprise. The human resources manager should have a way of thinking, stand on the global level and grasp the pulse of the times, establish a long-term vision, and combine field investigations to understand the current capabilities and qualities of talents. Develop a scientific and rational development plan.
to provide talent support for various departments.

4.2 Building a human resource management system under the era of big data

The era of big data has changed the external living environment faced by enterprises and promoted the emergence of new formats. Enterprises want to find a foothold in the new environment is to build a human resources management system under the era of big data (see in Figure 2). First of all, we attach importance to the qualification of selecting and hiring employees, observe the new development of employees' work in daily management, and let employees recognize the corporate culture and interdependence with the development fate of the company. Secondly, there will be a few new jobs in the era of big data. The birth of these positions is crucial for the survival of enterprises. It is necessary to introduce and train new positions and to define the interaction between specific positions and functions. Finally, the data is analyzed using a big data system. Due to technical or information data constraints, when analyzing systematic data, it will limit the horizon. At this time, the combination of enterprise data and advanced information data has an opportunity. Enterprise human resources make full use of this advantage and extract it from massive information. Generate useful information to improve business efficiency.

![Figure 2 Human Resource Management System under Big Data Technology](image)

4.3 Optimize human resource allocation strategy

Economic globalization has dramatically changed the world economic environment, and enterprises are facing new opportunities and challenges at any time. In the traditional human resource management mode, a static information management mode is adopted, which cannot effectively integrate information fragments and information single lines. In the event of a major business transformation, there will be a huge talent gap and missed opportunities for development. The development of enterprises and employees is inseparable from the performance appraisal of the human resources department. Performance appraisal is a core part of the human resource allocation strategy, and it is also a very important part of evaluating employees. The application of big data technology has effectively improved this situation. By constructing a new data management process, the individual responsibilities and job responsibilities of the employees are fully combined to ensure proper staffing at each stage of the company. The use of big data technology can effectively analyze future industry trends, enable enterprises to transform their business priorities with the adjustment of their own strategic goals, clarify the needs of medium and long-term talents, and do a good job in talent reserve. The human resources department systematically enhances the overall quality and professional ability of talents by changing the traditional management model. In the context of economic integration, the essence of comprehensive strength competition among countries is also
the competition for talents, effectively integrating human resource management technology and big data technology, and providing reference for enterprise decision-making.

5. Conclusion

To sum up, in the context of big data, as a human resource management personnel, we must update our concepts in a timely manner, by shaping the human resources performance management framework, using big data and humanized management methods, and by changing the traditional human resource management model, occupying the active position of market competition to achieve stable and sustainable development of enterprises. Human resource management is the key to business development. Therefore, in the face of the wave of development in the era of big data, enterprises learn to use big data management thinking to better realize the management of human resource allocation and build a human resource management innovation system, thereby improving the efficiency of human resource management and finding suitable talents for enterprises. To help enterprises in the future development, they can be in an invincible position in the fierce market competition environment.

References