Research on Human Resource Management Innovation in the Context of Big Data

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ABSTRACT

This article is based on the background of my country's entry into the big data time and the reality of the country's advocacy of "Internet +", and is oriented to promote enterprise human resource management to adapt to and use big data. Taking the research background and research significance as the starting point, analyze the informatization, openness, visualization and predictability of human resource management under the background of big data, and finally from human resource planning, recruitment and distribution, training and development, performance incentives and other human resources Starting from the functional module, put forward corresponding innovative suggestions.

Keywords: Big data, Human resource management, Innovation.

1. INTRODUCTION

As Internet information technology rapidly develops, big data has been broadly employed and developed in various industries. The huge value contained in big data has very far-reaching significance for national governance, corporate decision-making and personal life. Grasping the opportunities and challenges brought by big data will surely bring far-reaching influence to the company [1]. However, the big data application in enterprises is still in its infancy, especially in the recruitment, training, incentives, background checks and other modules in the field of human resource management. There are few data sources in it, and it is difficult to make scientific research on it [2]. Judgment relies more on the experience of human resource managers, and there is still much room for improvement in the big data application. Therefore, research on human resource management innovation under the background of big data is of vital importance to enterprises.

2. RESEARCH BACKGROUND AND MEANING

2.1. Research Background

At present, the big data trend has spread worldwide. Big data and Internet+ are hot topics that have triggered extensive discussions from all walks of life. Today, with the continuous upgrading of the industry and the changing information dissemination methods, the overall global data volume is showing a huge growth trend. The emerging concept of "big data" is gradually known and accepted by people [3]. Chinese companies should fully understand and make good use of data to adapt to the times and use big data as a new driving force for promoting their development. However, at present, human resource management has not fully utilized big data, and there are many problems in the management stage [4], so it's essential to investigate the innovative model of human resource management under the background of big data.

2.2. Research Meaning

The research results provide meaningful experience and insight for the human resource management practices of various corporations. First of all, data mining within the enterprise offers a scientific basis for digitization and accuracy for enterprise management decision-making. Secondly, in all aspects of the company's human resource management selection, cultivation, use and retention, scientific management must be measurable, recordable, analysable, and improveable. Therefore, relying on big data technology to predict and evaluate, gradually promote the application is feasible. For example, in the future recruitment of talents, it is easy to discover and predict candidates' unseen motivation, willingness, stress

adaptability and other characteristics through the exploration of talent ability assessment, personality test, trait analysis, and definition of behavior orientation. It can help companies quickly find suitable talents with high matching degree [5][6]. Simultaneously, the application of Internet and cloud platform technology makes data networking highly shared as well. Enterprise development can not only rely on the internal data of the enterprise, but also collect and analyze external data, including government policies, industry status, and competitors. The basic situation, the situation of upstream and downstream enterprises, etc. [7], have offered large convenience to the development of the external market of the enterprise.

3. FEATURES OF HUMAN RESOURCE MANAGEMENT IN A BIG DATA ENVIRONMENT

3.1. Human Resource Data Informationization

Big data human resources management is to combine mobile Internet technology, cloud computing technology, etc., to collect data points in employee process performance, and collect various collected data to the big data technology processing platform for storage and processing [8]. Different from the traditional human resource management mode, the data sources of human resource management on basis of big data are diversified. Instead of relying on a single manual input indicator, the system automatically extracts performance management indices at each time node. Besides conventional text information, it also contains numerous non-manual input performance management data, such as pictures, videos, and progress These data enrich the dimensions of data sources, increase numerous unstructured data, and make human resource management more effective and more information [9].

3.2. Open Human Resources Data

The open data management platform established by big data human resources can obtain and share data well in order to make full use of data [10]. Openness, on the one hand, is open to data uploaders, enabling cloud platforms to collect more data and conduct more accurate analysis; on the other hand, open to data users, data needs to be made by enterprises themselves. The use by all decision-makers helps employees observe their own performance data in real time and discover and solve problems in time; at the same time, it helps managers to effectively grasp human resource management indicators and improve management efficiency. In addition, due to the convenience and speed of information acquisition, information asymmetry caused by cross-departmental technology and status will be eliminated to a large extent, reducing the cost of acquiring information from various departments and speeding up decision-making.

3.3. Human Resource Data Visualization

After processing big data through cloud computing, due to its powerful computing power, it can analyze the hidden logical relationship between data, find the correlation between performance indices that are difficult to find by traditional approaches, and even improve key indicators and basic methods from the analysis. Therefore, performance analysis visualization can quickly improve enterprise KPI [11]. At a deeper level, visualization can also present diverse representations to diverse users. With the powerful analytical and computing capabilities of cloud computing, big data technology can analyze data information from multiple dimensions and aspects, and provide various personalized explanations for the same data source information. Data analysis reports are formed for diverse users, and users can have various roles, choose analysis reports related to their role positioning, and help them understand human resource information more accurately.

3.4. Predictable Human Resource Data

On the macro level, human resource management under big data, with its advanced computing capabilities, can analyze large amounts of data, combine historical data, industry conditions and other data, make rough forecasts and adjustments to the company as a whole, implement strategic goals in time, and reduce Internal risk factors; at the micro level, for individual employees, combined with their historical performance, recent behavior, family situation, psychological tests and other information, they can also predict and analyze their job competence, and the results can be used to train employees after training , Adjust positions and match.

4. HUMAN RESOURCE MANAGEMENT MODULE INNOVATION

4.1. Human Resource Planning and Management Innovation

Add a big data team and a human resource management team to the organizational structure. Having a sufficient number of big data talents is a prerequisite for the existence of human resource management information systems. The construction, operation, maintenance and development of human resource management information systems need to be completed by professionals with big data technology [12]. Hence, it's essential to add a big data team in the organizational structure and workforce planning. Besides, in a big data environment, human resource management and other management links such as

financial management, legal management, and administrative management will also require big data teams for reforming and optimizing. Based on the above reasons, each enterprise needs to establish a big data processing center in the organizational structure. On the one hand, it is to satisfy the requirements of the human resource management information system. On the other hand, it can also be more adequate for "big data application reform" in other management links Preparations.

To a certain degree, the big data processing center needs to set up a human resource management team. This necessity lies in that the human resource management information system is not static. At this stage, the big data technology is still under growth. For meeting the new market demand, it also needs the human resource management information system is constantly developing new human resource management functions. This task can only be a comprehensive talent with big data technology and human resource management knowledge. Therefore, some big data professionals need to be separated from the big data processing center. To form a human resource management team to develop human resource information systems.

4.2. Establish a Shared Two-way Human Resource Information System

The establishment of a shared human resources management information system is to enter the company's external personnel information into the company's information database, which is conducive to the company's targeted recruitment of talents at any time; and external employees can also update information on third-party mobile platforms at any time so that they can Waiting for the opportunity to get the latest job opportunity. At the same time, through research, it seems that the databases of many companies only circulate in one direction, and employees cannot update the database at any time, let alone communicate with the company. In the big data environment, companies can establish an intelligent two-way human resources database, so that employees can update their information anytime and anywhere, and can see the company's positions and opportunities anytime and anywhere, and make timely self-adjustments. This shows to a certain extent that employees can directly communicate with the human resources team on their problems, without using business department managers as the media to improve the feedback efficiency. This shared two-way information system mobile terminal model can realize the input and read of external personnel data information through account permissions, etc., internal personnel two-way communication, etc., making the entire talent information work more dynamic and efficient.

4.3. Recruitment and Configuration Management Innovation

4.3.1. Establish a Talent Value Exchange Market

The basic characteristics of contemporary enterprises in the recruitment of important positions are: to ensure the quality of recruitment through long-term processes, high costs and multi-person participation [13][14]. For example, it must rely on the resume provided by the headhunting company, and select several rounds or even several rounds of written examinations to ensure the quality of the candidates. Such a cumbersome process creates an obvious contradiction between the quality and efficiency of recruiting important positions. Then companies can simplify the recruitment process by using big data technology, which requires talents themselves, employers and talent intermediaries to carry out quantitative accumulation, cross-domain sharing and model mining for each step of the human resource management process to form an orderly talent value Exchange market [15]. For example, comprehensive performance, salary and benefits, professional history, professional credit information of various corporate professionals and other information. In this market, companies can refer to these data and information for retrieval, sorting and other operations to quickly find the right talent needs.

4.3.2. Build a Selection and Matching Platform

One side of the platform is a collection of data about candidates. The company first collects information such as job applicants' academic qualifications and work background, and further uses big data and other technologies to process these data to derive the specific information reflected by these data In the future, such as the work status and employment trends of employees, we will further fully understand the various indicator systems of candidates. On the other side of the platform is a collection of data about recruitment positions. It is a collection of data related to recruitment positions. It is a practical plan that combines the recruitment plans of various departments of the company and the current human resources of the company. The establishment of this platform enables managers to more clearly grasp the various trends of employees and understand the situation of employees; it also enables managers to more accurately understand the information of recruitment positions; this makes the configuration work no longer solely relying on managers The experience and perception make the matching of people and posts more accurate.

4.3.3. Establish a "Digital Portrait" of High-performance Talents

The general characteristics of the high-performance talent team are summarized by big data, and the high-performance "digital portrait" is established [16]. Human resource managers can actively collect the original data and related information of high-performance employees, organize all the data, build a scientific information system for high-performance talents, and dynamically understand the development of high-performance employees. This information includes employees' work resumes and work efficiency. , Performance data and social conditions, etc., make the phenomenon of high-performance talents more concrete, so that a summary of the characteristics of high-performance talents can provide a clear direction for future talent recruitment.

4.4. Training and Development Management Innovation

The true "value" of big data lies in correcting the wrong conclusions that most companies currently draw in the form of questionnaire statistics. On the contrary, the human resource management department should find the missing data, make up for the missing data resources, and implement individual training. For example, in a manufacturing company, the line leader can pay attention to the error rate of front-line operators, and the content of their training can be reflected in these structural efficiency data. If the data performance indicators decline, the human resources department can gather, sort and analyze various data of technical personnel, deeply analyze its root causes, and develop different training plans according to different situations. Enterprises can collect the original data and related information of employees, organize all data to build a scientific personal information system, and dynamically understand the development of employees. This information includes employees' work resumes, work efficiency, performance data, and social status. Make the image of talents more specific, so as to avoid focusing only on efficiency data, understand the future plans of employees in a dynamic way, and formulate suitable training plans for each employee's actual situation.

4.5. Establish a More Fair Performance Compensation System

In order to achieve objective truthfulness, fairness and justice in performance appraisal, to achieve effective incentive effects for employees, so as to encourage them to serve the company and enable the company to obtain more benefits. Companies must implement individualized incentives for employees. For example, for those who perform well in ability data and

potential data, diversified incentive mechanisms are needed, especially senior or key employees, who further hope to achieve success in their positions and improve Their own status, their reputation and authority needs are to a certain extent stronger than material interests. Companies need to change the traditional experience management model. On the contrary, they need to use big data technology for establishing a digital human resource management information system, and use numbers to speak to achieve more accurate and fair assessments. At the same time, mobile Internet communication methods can be used to change the previous staged evaluation and use daily continuous data recording. This real-time tracking gets rid of the shortcomings of traditional data lag, so that the data can be more closely matched with people, making performance management more simple and convenient Accurate [17]. In addition, you can also establish an information sharing and interactive platform within the company, and actively solicit opinions from employees to make improvements.

5. CONCLUSIONS AND LIMITATIONS

In a big data environment, the author proposed innovative measures for human resource management in Chongqing's manufacturing industry, expecting to offer an insight into human resource management innovation. However, there are still a series of problems such as cost technology, ethics and morality.

5.1. Cost Technology

This article does not discuss the cost of building human resource management information systems on basis of big data technology, which is a bit beyond the reality of corporations, and it's essential to further investigate the actual costs and estimated benefits of building these systems. In addition, the theoretical part of how to build a human resource management system is relatively mature, but big data technology issues are still being researched and developed. How to use big data technology to develop our ideal human resource management system requires big data technicians to be more in-depth and detailed Development and management.

5.2. Ethics and Morality

Human resource management information systems still need to face information security issues. Big data technology is not yet completely mature. After the establishment of the human resource management information system, whether it meets the information security standards remains elusive. Besides, the human resource management information system also faces privacy, infringement, and other problems. The human resource

management information system registers the operation and access records of employees. It involves employee privacy troubles and information system privacy and rights issues. There are no relevant laws and regulations. Guidelines, how to collect as much data as possible while protecting employee privacy remains to be explored.

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