Opportunities and Challenges for HRM in the Era of Big Data

Yan Zhao[*]

Krirk University, Bangkok, 10220, Thailand
1226071138@qq.com
[*]*Corresponding author*

Abstract: The effective implementation of human resource management can not only help enterprises achieve the optimization of personnel organization and job structure, but also ensure the rationalization of the implementation process to the maximum extent. In this paper, the opportunities and challenges of human resource management in the era of big data are studied and discussed, hoping to help enterprise managers to think more in the process of management construction and optimization, so as to better enrich the human resource management system construction to play a positive impact.

1. Introduction

With the rapid development of Internet informatization technology in recent years, various industry fields are integrating with informatization technology in a deeper level. Under the influence of such an era of development, the state has once again put forward new requirements for the development and transformation of information technology in state-owned enterprises, and the information construction of human resource management has also attracted extensive attention from enterprise managers. As an innovative technology field in the development of information technology, big data can better assist the human resource management system to strengthen the comprehensive analysis of enterprise operation data, so that not only can the data information carried out for management work be effectively analyzed and shared, but also can be combined with the corresponding online software and hardware functions to improve the quality of the implementation of work content, and finally bring great convenience to the human resource management of state-owned enterprises.

2. Opportunities Ahead

2.1. Increasing Strategic Position of HRM

In the process of traditional human resource management in state-owned enterprises, the main work content of the relevant positions is often centered on the identity information and work data of a large number of employees, so a lot of time is needed to deal with trivial daily affairs. The actual

situation also causes that HRM post personnel rarely can enhance the positive influence on enterprise decision making by systematically thinking about strategic issues related to the enterprise, so HRM posts and departments do not occupy the core important strategic position in the development process of each enterprise. With the advent of the era of big data, HRM positions, as the frontier of data processing, take the lead in the functional transformation of positions and departments realized through the application of information technology and intelligent technology[1] . Such a process of development and change, on the one hand, promotes the human resource management positions to be able to combine new technologies to achieve efficiency improvements in their own work content, thus achieving a more comprehensive standardization and intelligence for daily information processing and analysis work. On the other hand, it lightens the workload of the post holders themselves, so that they can better cooperate with the advanced analysis function of big data and play an important role in promoting the relevant strategic issues of enterprises, and reflect an increasingly important strategic position under the development trend of state-owned enterprises. In addition, some technology-advanced enterprise companies, after bold reforms in human resource management departments, have been able to effectively strengthen not only the quality of personnel training and delivery within the enterprises, but also to cooperate with the top-level design work carried out by professional and technical personnel through the construction of human resource expert centers and human resource business cooperation systems. In addition, the effective expansion of HR business can help SOEs to provide more flexible HR solutions in the process of achieving different business development, and provide more accurate personnel services to different departments. Such an expansion of work content not only opens up the efficiency of the use of personnel in all aspects of the enterprise, but also plays an important role in guiding the long-term development of the enterprise.

2.2. Effectively Promote the Quality Effect of HRM Work

In the process of traditional human resource management in state-owned enterprises, the post holders mainly integrate and use the information that has been submitted and confirmed by the employees, such as the basic information of the employees, such as age, education and profession. Therefore, most of the data often need to be integrated for a period of time before they can be put into use for management work. The actual situation also causes the human resource management work to be more result-oriented, and puts more demands on the organization structure and staff size of the human resource positions[2] . With the advent of the era of big data, the overall efficiency of human resource management work has been greatly improved, which not only can greatly free the workload of the post personnel, but also can effectively collect all the data generated in the process of working with employees, so that the data analysis of resource management can be better biased towards the process and prediction. Such a change in focus can better reflect the core objectives of human resource management, on the one hand, it can more comprehensively reflect the changes in employee competency data during the training process, so as to better judge the effective allocation of positions according to the development prospects of employees. On the other hand, it can also strengthen the implementation of employee performance and evaluation system by combining the massive resource management data. Such a development process can better solve the inherent problems and hidden dangers of human resource management within state-owned enterprises, and combine with new technologies to greatly enhance the actual effect of human resource management, thus better providing important ideas and bases for optimizing the subsequent management decision-making work.

2.3. Increased Impact of HRM Efforts

Hidden dangers of human resource management within state-owned enterprises, and combine with new technologies to greatly enhance the actual effect of human resource management, thus better providing important ideas and bases for optimizing the subsequent management decision-making work. In the process of decision making, enterprise managers often need to combine relevant data from different departments for effective analysis and judgment, but because the content of human resource management work often shows greater limitations, it is difficult to play an effective role in promoting the management of subjective experience, which leads to management decisions often present subjective and one-sided problems, thus affecting the overall state-owned enterprises the long-term stable development of the overall state-owned enterprises. In the development of the big data era, the scale of data handled by the human resource management department has been greatly increased in a short period of time, and it can also provide multi-level personalized data analysis services for different role requirements[3] . Such a practical situation promotes the human resource management work into a clearer and more targeted data-assisted stage, and can effectively enhance the actual influence of human resource management work in the process of enterprise development. In addition, the daily communication between HRM post personnel and grassroots employees is relatively small, so through the combination of big data analysis and information technology software and hardware functions, it is possible to establish an in-depth interactive communication platform with grassroots employees more extensively. In this way - not only can we better reflect the work and life situation of grassroots employees, but also can effectively improve the influence and cognitive quality of HRM work among grassroots employees. This not only can better enhance the human resource management work for the establishment of a harmonious relationship between the grassroots staff, but also on the other hand can strengthen the internal cohesion of the state enterprise up and down, for the outbreak of a more powerful core competitiveness to play a profound promotion significance.

3. Challenges Facing

3.1. Change of HRM Concept and Model

As SOEs face the pressure of increasingly competitive market environment, some domestic and international industry sectors are becoming more and more complex in terms of influencing factors. Such actual situation also makes the managers of state-owned enterprises widely aware of the important role of their own development and change, and hope to seek more far-reaching development by combining advanced management concepts and technology application ways. However, the change of concept and model in the process of HRM work is still the biggest challenge that exists at present, some management decision makers do not pay enough attention to the data widely used in HRM process, but follow up the development through the previous management experience[4] . Such a reality not only causes the development direction of SOEs to deviate significantly from the overall future trend, but also causes the quality of HRM work to be carried out to be negatively affected. In addition, the challenges in the process of human resource management also come from the personnel themselves, some of whom have not come out of their comfort zone, so their attitudes and working methods are still more inclined to the traditional inherent mode. Such a practical situation also causes a negative impact on the transformation of HRM work in terms of concepts and models, then weakens the subsequent application of technology and structural optimization.

3.2. Challenges in the Use of HR Data

Although the human resource management work of state-owned enterprises in the era of big data has been supported by effective technologies and concepts, the following problems still exist in the process of acquiring and using actual resource data by post personnel. Firstly, with the advent of the Internet era, the scale and variety of online data have expanded to a great level, which has caused a steep increase in the difficulty for technicians to obtain and analyze valuable data for enterprise operation, and has put forward more requirements for the level of work quality of the personnel[5] . Second, state-owned enterprises in the process of information technology hardware and software facilities in the construction and development process still has a large room for improvement, so in the storage and processing of data still has a large gap with the advanced level. Such a practical situation also hinders the overall efficiency of information access and use by post personnel, and has a serious impact on the accuracy of subsequent data analysis. Third, HRM post personnel still have the problem of insufficient security awareness in the process of processing employee data information, which not only causes problems with the accuracy factor of associated data, but also increases the risk of exposing employee privacy. In this way, not only the contradiction between the data processing of furniture and the protection of employees' privacy, but also the resistance and resistance of SOE employees to the act of accessing and using information.

3.3. The Challenge of Integrated Talent for Big Data HRM

At present, state-owned enterprises have carried out extensive application and development of big data in human resource management. However, since most of the personnel mainly have traditional work experience and technical skills, they are able to effectively expand their original work of information integration and analysis, but there is still much room for improvement of their own information technology ability. The actual situation causes the lack of comprehensiveness in the process of information acquisition, and the lack of quality of application of advanced technology in HRM[6] . In addition, there is still a large demand for professional and comprehensive talents who are proficient in big data analysis algorithms in human resources departments of state-owned enterprises, and the new information acquisition and integration mode built with big data algorithms still needs to be continuously optimized and explored, which also affects the accuracy and stability of future decisions of state-owned enterprises to a certain extent. Therefore, how to cultivate and explore comprehensive talents in the era of big data has also become a great challenge for human resource management departments and enterprise managers.

4. Innovative Approach to HRM Model

First, in order to better improve the quality of innovation of enterprise human resources management work in the era of big data, managers need to carry out effective transformation of human resources work ideas, only through the combination of big data awareness and data analysis concept, it can better get rid of the traditional work ideas and models, so as to better strengthen the analysis and use of massive online data. In the actual process of work, the personnel should combine data analysis to target the recruitment of human resources required by the enterprise, and can cooperate with online communication channels to increase the quality of recruitment publicity[7] .Second, for the implementation of training-related work, should be combined with a large number of online teaching resources and career development training system for effective application, so that not only can better enhance the efficiency of online training work, but also can play a comprehensive optimization of the safety responsibility consciousness of training personnel and the level of job responsibility literacy, so as to better play an important role in paving the way

for the subsequent work. In addition, through the combination of big data technology, the personnel can also effectively investigate the hidden dangers and defects of their own management, so as to better combine innovative models to help enterprises improve their operational efficiency and core competitiveness.

Secondly, HRM post personnel should comprehensively monitor and standardize the application quality and application scope of the grassroots staff data of state-owned enterprises, which helps post personnel to strengthen the full excavation of valuable data in combination with analytical data, it can also reduce the time cost investment of useless data.In addition, HRM personnel can also build online information management system to effectively categorize the information of different departments and different businesses, which not only can better facilitate enterprise managers to combine different decision problems for data guidance, but also can play a role in promoting the scale of database of HR posts[8] . Next, in order to be able to better improve the security of the use and analysis of data of the grassroots employees, so as to better avoid the leakage of personal information or being used improperly. Human resource managers should strengthen the effective setting of environmental security for big data analysis functions and set permissions for data analysis functions, which can also be combined with supervisory positions to ensure that data is only used for human resource management related work.

Thirdly, in order to better combine big data technology to promote human resource management department in a long-term and stable manner so as to achieve stable development, enterprise managers should invest more resources to introduce and cultivate comprehensive technical talents of big data. In this way, it can not only provide effective support for the subsequent information construction, but also play a paving role for the daily software and hardware function update and maintenance. In addition, the level of comprehensive information technology literacy within the human resource management department should be strengthened, so as to better cultivate management complex talents from within and enhance the stability of the development of talent management system, which on the other hand effectively combines its own human resource management literacy for the comprehensive construction of modernized big data processing team, and ultimately makes an important contribution to the long-term stable development of state-owned enterprises.

5. Conclusion

To sum up, as state-owned enterprises face the arrival of the era of big data in the development process, human resource management work will also face new opportunities and challenges. Relevant post personnel should effectively enhance their own work development ideas, so that they can combine new information technology and software and hardware functions to enhance the development and way optimization of resource management, so as to better pave the way for enhancing the development and management efficiency of state-owned enterprises. On the other hand, they should be alert to the security of the enterprise's own management information resources in the era of big data, better integrate deeply with the traditional management mode and concept, and eventually cooperate with big data to realize more accurate enterprise development decisions, and play a role in promoting the construction of a more scientific and efficient human resource management system.

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