

Innovative Development of Human Resource Management in the Era of Digital Intelligence

Yuchu Shi

Tourism and Health Department, AnHui Business and Vocational College, Hefei 231131, China

Abstract

In the era of digital intelligence, human resource management in enterprises must keep pace with the development of science and technology, respond to challenges and seize opportunities through intelligent transformation, and provide support for the sustainable development of enterprises. This study is dedicated to deeply analyzing the application of intelligent management mode for human resource in enterprise practice and assessing its far-reaching impact on enterprise management level. By exploring concepts of digital management and focusing on intelligent recruitment and selection, intelligent training and development, and intelligent performance management tools, the possibilities of digital transformation in the field of human resource management are being actively explored. In addition, by focusing on the core values of operational efficiency, data security and privacy protection in enterprises, an enterprise-level HR data platform is built to accelerate the intelligent upgrading of HR management systems. These measures can not only provide solid organizational protection for enterprises, but also ensure strong support in talents, thus promoting the sustainable growth and competitiveness of enterprises in the digital era.

Keywords

Era of Digital Intelligence; Human Resource Management; Intelligent.

1. Introduction

With the arrival of the digital era, intelligent management has become an important trend in the field of human resources. In the context of enterprises actively promoting digital transformation, human resource management, as a key part, must take the initiative to integrate and innovate to provide strong support in talents and organizations for organizational development [1]. This paper focuses on the recruitment, training and assessment of intelligent management mode, and in the era of intelligent transformation, enterprises should attach great importance to the application of artificial intelligence in human resource management practice. The application of this technology can not only optimize the human resources process, but also improve the quality of decision-making while providing employees with more personalized support in their career development. With the continuous maturation and popularization of AI technology, its role in human resource management will become more significant and have a profound impact on the business results of the organization and the efficiency of employees.

2. Overview of Intelligent Management Mode

2.1. Trend of Intelligence for Human Resource

Artificial Intelligence (AI), as a representative of cutting-edge technological power, is developing at an astonishing speed, and has gradually penetrated into the workplace to bring challenges to traditional human resource management while changing the world of human life [2]. Its wide application has brought unprecedented challenges and pressure in innovation to traditional human resource management. With the rapid development of science and

technology, the field of human resource management gradually ushered in the wave of intelligence. This trend is not only reflected in the application of digital technology, but also in the extensive use of data analysis, artificial intelligence and other cutting-edge technologies in human resource management. Enterprises are increasingly inclined to use intelligent tools to manage recruitment, performance evaluation, training and development etc. for employees. The rise of the trend of intelligence is driving traditional human resource management to move towards digitalization and intelligence.

2.2. Impact of Intelligent Management on Enterprises

Intelligent technologies are driving organizational activities to become more efficient and rapid, and they are reshaping the way control, coordination, and cooperation take place in enterprise management [3]. Through the use of intelligent tools, enterprises are able to more quickly screen out qualified personnel and conduct performance assessment and payroll management more efficiently. Intelligent management improves the decision-making and development planning for talents of enterprises, making management more scientific, accurate and predictable. Enterprises are more competitive in intelligent management and more likely to adapt to the rapidly-changing market environment.

3. Intelligent Recruitment and Talent Introduction

3.1. Application of Intelligent Recruitment Tools

The extensive use of intelligent recruitment tools is changing the way enterprises introduce talent. The application of tools such as artificial intelligence technology, big data analysis and brain bank system not only significantly improves the recruitment efficiency, but also customizes the talent team for enterprises to better meet their needs. Intelligent recruitment tools screen resumes through rapid and accurate algorithms, and then conduct in-depth analysis to consider all aspects of skills, experience, and even the soft power of the talent to provide enterprises with more comprehensive recruitment information, which is not only embodied in the initial screening of resumes, but also extends to the analysis of the language and the interview video, to better decipher the candidate's ability to communicate and the level of expression, and the analysis of the interview video can be an in-depth observation of the candidate's expression, tone of voice, and potential traits.

3.2. Data Analysis and Predication in Talent Introduction

Data analysis in the talent introduction is a key part of the strategic recruitment of enterprises. Through in-depth analysis of recruitment data, enterprises can more accurately assess the demand for talent, grasp the market dynamics, and develop a more forward-looking and targeted strategy for the future introduction of talent. This kind of data analysis is not only the observation of the current recruitment situation, but also is an insight into the potential supply and demand trends of talent based on the analysis of historical data[4]. Enterprises can discover some hidden laws and trends through the mining of historical recruitment data, such as the volatility of recruitment demand in a specific time period and a specific area, and the flow of trends for different types of talent, etc. Such data contains valuable information, which can help enterprises more deeply understand changes in the market and industry. With the accumulation of historical data, combined with trends in the development of the industry, enterprises can more accurately predict future challenges and needs in talent, and then adjust their recruitment strategies and strategic planning to maintain a competitive advantage in the face of fierce competition.

3.3. The Balance between Data Privacy and Intelligence of Recruitment

Data privacy protection plays an important role in intelligent recruitment. As talent recruitment becomes progressively intelligent, issues such as privacy leakage and data misuse are becoming more prominent. For this reason, enterprises need to clarify and strictly implement privacy protection measures to ensure that the personal information involved in the recruitment process is adequately protected. Privacy protection should start at the point of data collection. When acquiring job seekers' information, enterprises need to provide a clear privacy policy that clearly spells out how the data will be collected, stored and used, and need to ask for the consent of job seekers. This is not only a basic requirement for compliance, but also respects and protects the rights and interests of job seekers' information. Meanwhile, in terms of data storage and management, enterprises need to establish a sound information security system and adopt measures such as encryption and anonymization to safeguard data security, which means that enterprises need to invest more resources to strengthen information security management in terms of technology and personnel training to prevent the risk of information leakage. In addition, enterprises need to establish an internal data rights management mechanism to clarify the access and use rights of personnel in different positions with respect to data, and prevent internal personnel from abusing data. Enterprises also need to conduct training in regular data security awareness for employees to improve their awareness of data protection, thereby reducing the risk of data leakage.

4. Training and Development for Intelligence

4.1. Training and Development Tools for Intelligence

In the field of talent training and development, advances in digital technology have facilitated the development of talent analytics practices based on big data, predictive algorithms, data mining and visualisation tools [5]. By collecting and updating employee data in a comprehensive and real-time manner, understanding stable traits such as personality and education level, as well as changing state characteristics such as experience and skills over the course of a career, managers are able to leverage tools to build an employee profile, as well as grasp relational dynamics such as personal influence and interactions among employees, which is critical information for guiding personnel decisions, such as the team allocation and talent development. In this process, building detailed talent profiles of individual employees and conducting a comprehensive talent inventory at the organisational level are two key practices in the talent analysis. By building an employee's talent profile, managers can identify training needs for more effective development in human resource.

4.2. Data Security Management for Training Tools

Data security management plays a key role in the construction of training and development platform for intelligence, not only as a technical tool, but also as a basic guarantee for the information security of enterprise employees. The core of data security is to establish a sound data protection mechanism, which includes strict control in rights and setting rights to restrict different users from accessing and modifying data in order to prevent sensitive data from being accessed, modified or leaked by unauthorized personnel or malware. Data backup and recovery are one of the most important measures for data security. Regular data backup can not only provide backup in case of data loss or damage, but also quickly restore the data to its previous state in case of security attacks or system failure. In addition, data security management also needs to involve the cultivation of employees' security awareness, and is an important part of preventing data leakage and attacks whether being the popularization of security awareness or training for specific security issues.

5. Intelligent Performance Management

5.1. Intelligent Performance Assessment System

Digital technology is a powerful tool to reduce the cost of payroll management for organizations and improve the effectiveness of performance assessment [6]. Intelligent performance assessment system is an important part of enterprise management, which, through the collection, analysis and application of data, helps enterprises more effectively assess the performance of employees. The establishment of this system needs to start from several aspects: first of all, a clear indicator system needs to be established, in which the indicators should cover the key job responsibilities and performance objectives of the employees, and should be quantifiable, measurable and traceable, such a clear indicator system can help employees clearly understand their own work priorities, which is conducive to a better grasp of the objectives in their daily work. Secondly, data-based performance appraisal also needs to rely on effective data collection and recording, enterprises need to establish a perfect data collection mechanism, integrate employees' work data to ensure the accuracy and comprehensiveness of the data. Modern technologies such as artificial intelligence and big data analytics can help companies process and analyze data more quickly, identify potential work trends, and provide predictive analytics for more accurate decision support. Artificial intelligence-driven expert systems are able to collect information from the user's end and build their own knowledge bases and databases. The intelligent performance appraisal system makes the performance appraisal indicators more data-driven and closely corresponds to the actual work performance, effectively reducing the arbitrariness brought by subjective evaluation. By eliminating the influence of personal emotional factors in the performance appraisal, the appraisal results become more accurate, persuasive and comparable [7].

5.2. Application of Intelligent Performance Management Tools

The application of intelligent performance management tools is having a profound impact on enterprises, with their core strengths lying in their powerful computing capabilities based on artificial intelligence and big data analytics. These tools are able to quickly and accurately conduct performance evaluations through advanced intelligent algorithms and models, and the automated evaluation process significantly saves management time and reduces subjectivity and bias, thus enhancing the objectivity of evaluations. In addition, intelligent performance management tools can automatically generate customized performance reports based on the data collected. Through these reports, managers can gain a deeper understanding of their employees' work status, potential and development path, providing solid data support for personalized coaching and training. At the same time, more timely provision of data and feedback makes managers respond and adjust more quickly in the actual work; timely problem solving contributes to the continuous growth and development of employees.

5.3. Performance Data Analysis and Enhancement

Performance data analysis plays a key role in enterprise operations, and it helps enterprises identify patterns and trends in employee performance. By analyzing large amount of data, managers can more accurately assess the contribution and potential of employees and identify potential problems such as work bottlenecks or training needs. Ongoing performance data analysis helps enterprises optimize management strategies, make more effective decisions, stay competitive in the marketplace, and adapt to external changes.

6. Prevention for Data Leakage and Risk

Maintaining data security is a key challenge in the enterprise management, requiring the development and implementation of a complex set of strategies to protect against the risk of

data leakage. The first step involves building a comprehensive data security management system, in which strict categorization and classification of data is fundamental. This system must ensure that data at different levels of sensitivity are protected with appropriate safeguards and access rights configured appropriately. Technical tools, such as data encryption and access control, are essential to minimize the possibility of data leakage. In addition, raising employees' awareness of the importance of data security is an essential component of an organization's security strategy. By organizing regular security training sessions, one can not only enhance employees' awareness of security, but also equip them with the necessary data protection protocols and practical skills. This ongoing education is particularly effective in preventing data leakage due to operational errors or misconduct.

At the same time, organizations must be prepared to respond to potential data security incidents, and developing and maintaining a crisis response plan that includes clear assignments in responsibility and processes for handling them is critical. Being able to act quickly and effectively in the event of a data leakage can minimize damage and limit the scope of the impact. Collectively, these strategies form the cornerstone of an organization's data security management, designed to protect its assets and preserve its reputation.

7. Conclusion

Overall, through the studies on the exploration and practices of the intelligent management mode of human resources, managers have deeply realized its importance and prospects in today's enterprise management. The practice of intelligent management mode not only brings more efficient and intelligent management for enterprise management, but also raises new challenges such as data privacy protection and data security. In the future, it is expected that intelligent management can be better combined with management practice to provide more comprehensive and intelligent solutions for enterprise innovation and development.

References

- [1] Fei Zhengyu, Huang Peiguang, Zhu Peng. Thoughts on Digital Transformation of Human Resource Management in Enterprises[J]. *Journal of Wuxi Vocational Institute of Commerce*, 2021, 21(01): 44-48.
- [2] Zhao Shuming, Zhang Min, Zhao Yixuan. A Review on the Past 100 Years of Human Resource Management: Evolution and Development [J]. *Foreign Economics & Management*, 2019, 41(12): 50-73.
- [3] Wayne F. Cascio, Ramiro Montealegre. How Technology Is Changing Work and Organizations[J]. *Annual Review of Organizational Psychology and Organizational Behavior*, 2016, 3(1): 349-375.
- [4] Zhang Jianmin, GU Chunjie, Yang Hongying. Artificial Intellectual Techniques and Human Resource Management Practices: Impact Models and Paradigm Shift[J]. *Human Resources Development of China*, 2022, 39(1): 18.
- [5] Uri Gal, Tina Blegind Jensen, Mari-Klara Stein. Breaking the vicious cycle of algorithmic management: A virtue ethics approach to people analytics[J]. *Information and Organization*, 2020, 30(2).
- [6] Xie Xiaoyun, Zuo Yuhan, and Hu Qiongjing. Human Resources Management in the Digital Era: A Human-Technology Interaction Lens[J]. *Journal of Management World*, 2021, 37(01): 200-216+13.
- [7] Xiao Xingzheng, Ran Jingliang, Long Chengchun. The Influence of Artificial Intelligence on Human Resource Management[J]. *Journal of Sichuan University of Science & Engineering (Social Sciences Edition)*, 2018, 33(06): 37-51.