

Application of Artificial Intelligence in Recruitment and Selection

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Abstract: The aim of this paper is to analyse the application of artificial intelligence in recruitment and selection. In terms of application in recruitment and selection, AI plays an important role in resume screening, interviewing and competency assessment. By applying AI technology, companies can screen suitable candidates more efficiently and improve recruitment efficiency and accuracy. In addition, AI can help enterprises better assess candidates' abilities and potential in the interview process through technologies such as voice and image recognition, which has greater potential in competency assessment. Artificial intelligence plays an important role in the recruitment and selection process, and enterprise managers should continue to explore and summarise to integrate artificial intelligence more closely with the recruitment and selection of the enterprise, and to promote the effective management of the enterprise.

Keywords: Artificial Intelligence, Recruitment and Selection, CV Screening, Interview, Assessment Ability.

1. Introduction

Human resource management (HRM), as an important part of organisational management, aims to improve the efficiency of employees and the competitiveness of organisations. However, traditional HRM methods are inadequate in the face of increasingly complex HRM challenges. With the rapid development and wide application of AI, more and more organisations have started to introduce AI technology into HRM. In terms of recruitment and selection, AI can use big data and machine learning algorithms to analyse resumes, screen out the most suitable candidates for the job requirements, and provide assisted decision-making support during the interview process. In addition, AI can simulate real work scenarios and assess candidates' abilities and adaptability with the help of technologies such as virtual reality and augmented reality [1]. Our goal is to gain insight into the application of AI technologies in the recruitment and selection process. This will involve specific applications of AI in CV screening, interviewing and competency assessment, as well as its impact on the quality and efficiency of recruitment. Through the introduction of AI technology, the accuracy and efficiency of recruitment and selection can be improved, helping enterprises to screen out talents that better match the requirements of the position. Therefore, it is of great significance to study the application of artificial intelligence in human resource management to promote the development of enterprises.

2. Application of Artificial Intelligence in Resume Screening

In modern human resource management, resume screening has always been a time-consuming and tedious task. Through the traditional manual screening, it is not only time-consuming and labour-intensive, but also prone to subjective bias and human error. And with the rapid development of artificial intelligence technology, more and more companies are beginning to apply artificial intelligence to the resume screening process [2].

The application of artificial intelligence in resume

screening mainly includes two aspects, automated screening and intelligent matching. First, automated screening uses artificial intelligence technology to achieve automatic extraction and organisation of resume information. Through natural language processing technology, the AI system can automatically extract key information in the CV, such as personal information, educational background, work experience, etc. This greatly reduces the workload of the HR department and improves the screening efficiency [3].

Secondly, intelligent matching is another important application of AI in resume screening. With the help of machine learning and data mining technology, the AI system can match the similarity between the job requirements and the information in the CV to determine whether the applicant meets the job requirements. By analysing a large amount of historical data and job descriptions, the AI system can establish a set of efficient matching algorithms to help companies quickly and accurately screen suitable candidates.

The application of artificial intelligence in resume screening brings many significant advantages. Firstly, it greatly improves the screening efficiency and reduces the workload of HR departments. Secondly, since the AI system has no subjective bias, the screening results are more objective and fair. In addition, with the help of intelligent matching technology, companies can more accurately find the candidates that best match the requirements of the position and improve the success rate of recruitment.

However, there are also some challenges and problems with AI in CV screening. Firstly, the algorithms of AI need to be continuously optimised and improved to increase the accuracy of matching. Second, the AI system's understanding of specific industries or positions still needs to be strengthened, and the ability to analyse industry characteristics and skill requirements needs to be further improved. In addition, the application of AI technology also has certain privacy and security risks, and adequate data protection and information security work is needed [4].

3. Application of Artificial Intelligence in Interviewing

The rapid development of artificial intelligence technology has brought brand new possibilities for traditional human resource management. In the recruitment and selection process, the interview has always been an important part of assessing candidates' ability and adaptability. The application of AI in interviewing can further improve the efficiency and accuracy of interviewing. This section will focus on the application of AI in interviews.

Firstly, AI can assist in screening candidates before the interview. Faced with a large number of CVs, human resources departments often need to spend a lot of time and energy to screen. And AI technology can automatically screen out unqualified candidates by analysing and comparing keywords and specific requirements in CVs. In this way, HR departments can devote more time and energy to more promising candidates and improve the overall recruitment quality [5].

Secondly, AI can assist in recording and analysing the interview process. In the traditional interview process, the interviewer needs to pay attention to the candidate's answers and make records at the same time, which may lead to the omission or misunderstanding of information. With AI technology, on the other hand, it is possible to automate the recording and voice recognition, converting the candidate's answers into text in real time. This allows the interviewer to focus more on the candidate's performance while being able to record and analyse the candidate's answers more accurately, improving the objectivity and accuracy of the interview process [6].

Additionally, AI can assist in assessing a candidate's emotions and non-verbal expressions during an interview. Candidates' emotions and non-verbal expressions can provide important feedback to help interviewers better understand candidates' personal attributes and potential. Whereas traditional interviewing methods may be influenced by subjective opinions and interpretations. With AI's computer vision technology and emotion recognition algorithms, a candidate's emotions and non-verbal expressions can be analysed and recognised in real time, providing objective assessment indicators. In this way, the interviewer can more comprehensively assess the candidate's qualities and adaptability.

4. Application of Artificial Intelligence in Competency Assessment

Competency assessment has been a key task in modern human resource management, which is used to determine the performance and competency level of employees at work. However, traditional methods of competency assessment have many limitations, such as subjective assessment and the influence of personal bias. To address these issues, artificial intelligence has been introduced into human resource management to provide innovative solutions for competency assessment.

The application of AI in competency assessment can be realised in a number of ways. First, AI can automate the assessment process by analysing large amounts of employee data. For example, by collecting information such as employees' work results, performance data, and training records, AI can use machine learning algorithms to identify

employees' strengths and weaknesses, thus providing more objective competency assessment results [7].

Secondly, AI can also assist the competency assessment process through intelligent testing and assessment tools. Using the technology of AI, various assessment tools can be combined with learning algorithms to dynamically adjust the difficulty of questions and scoring criteria based on employees' answers and performance. In this way, competency assessments can be more accurate and fair.

In addition, AI can assist competency assessment through technologies such as voice and image recognition. For example, in the interview process, AI can analyse the language and emotional expression of the interviewer, and assess his or her communication ability and emotional control ability based on natural language processing and emotion recognition technology. Meanwhile, by analysing facial expressions and body language, AI can also assess the interviewer's non-verbal abilities, such as self-confidence and affinity [8].

The application of AI in competency assessment can not only improve the objectivity and accuracy of the assessment results, but also save time and cost. With automated and intelligent assessment tools, HR managers can complete assessment tasks more efficiently and provide timely feedback of results to employees for their career development.

However, the application of AI in competency assessment also faces some challenges and risks. For example, the interpretability and fairness issues of AI algorithms and the protection of employee data privacy. Therefore, when using AI for competency assessment, HR managers need to weigh the pros and cons and establish a transparent and compliant assessment mechanism [9].

5. Conclusion

The application of artificial intelligence in CV screening brings many opportunities and challenges for human resource management. With the continuous development and improvement of AI technology, it is believed that it will play an increasingly important role in the future recruitment process. Enterprises can improve recruitment efficiency and find more compatible talents through the reasonable use of AI systems, thus injecting new vitality into the development of enterprises. The application of artificial intelligence in the interview can greatly improve the efficiency and accuracy of the interview [10]. With the assistance of AI, candidates can be screened more quickly, the objectivity and accuracy of the interview process can be improved, and the quality and adaptability of candidates can be assessed more comprehensively. However, it is important to note that although AI has high technological advantages, it still needs to be comprehensively assessed in the interview process in conjunction with HR expertise and experience to ensure that the most suitable candidates are selected. Future research can further explore how to optimise the application of AI in interviewing, improve its effectiveness and reliability, and bring more innovation and development to HRM. The application of AI in competency assessment brings many opportunities and challenges to human resource management. Through reasonable application and effective management, HR managers can make full use of the advantages of AI to improve the quality and efficiency of competency assessment and create better conditions for organisational development and employee growth.

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