



Analysis of the Use of Artificial Intelligence (AI) in Human Resources Management (HR): Study at PT Semen Baturaja Persero (SMBR)

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A B S T R A C T

The use of artificial intelligence (AI) in human resource management (HR) has grown rapidly in recent years. AI has the potential to improve the efficiency, effectiveness and accuracy of HR processes. PT Semen Baturaja Persero (SMBR) is one of the largest cement companies in Indonesia. SMBR has applied AI to various HR processes, including recruitment and selection, training and development, performance appraisal, and compensation and benefits. This research aims to analyze the use of AI in HR management at SMBR. This research uses a qualitative method with a case study approach. Data was collected through in-depth interviews with stakeholders in SMBR. The research results show that AI has provided significant benefits for SMBR in HR management. AI has helped SMBR to improve the efficiency of HR processes, such as recruitment and selection, training and development, and performance appraisal; improving the effectiveness of HR processes, such as recruitment and selection, and performance appraisal; improve the accuracy of HR processes, such as recruitment and selection, and performance appraisal. AI has great potential to improve HR management in SMBR.

1. Introduction

The development of information and communication technology has brought significant changes to various aspects of life, including human resource management (HR). One technology that has been widely applied in the HR field is artificial intelligence (AI). AI is a technology that can simulate human intelligence. AI can be used for a variety of tasks, including HR management. AI can help companies carry out HR management processes more efficiently and effectively. AI can be used to automate the recruitment and selection process so that it can be carried out more quickly and accurately. AI can help companies make more precise and accurate decisions. AI can be used to predict employee performance so that companies can provide targeted training and development. AI can help companies provide better HR services, thereby increasing employee satisfaction. AI

can be used to provide HR information and consulting services online.¹⁻⁵

PT Semen Baturaja Persero (SMBR) is one of the largest cement companies in Indonesia. This company has applied AI to several aspects of HR management, such as recruitment, training and development, as well as performance appraisal. SMBR uses AI to automate the recruitment and selection process. AI is used to automatically process applications, screen qualified candidates, and conduct virtual interviews. By using AI, SMBR can speed up the recruitment and selection process, as well as increase the accuracy of selection results. SMBR uses AI to provide training and development tailored to employee needs. AI is used to analyze employee performance data so that companies can know the skills and competencies that need to be developed. By using AI, SMBR can ensure that the training and development provided are in line

with employee needs. SMBR uses AI to assess employee performance objectively and accurately. AI is used to analyze employee performance data so that companies can provide fair and appropriate assessments of employee achievements. By using AI, SMBR can increase employee satisfaction and drive better performance.⁶⁻⁸ This study aims to analyze the use of artificial intelligence in HR management at PT Semen Baturaja Persero (SMBR).

2. Methods

This research was conducted using qualitative methods. Qualitative methods are research methods that focus on understanding the meaning and interpretation of the phenomena being studied. Qualitative methods are usually used to study complex and contextual phenomena. The data collection techniques used were interviews and documentation. Interviews are data collection techniques carried out through conversations between researchers and informants. Documentation is a data collection technique carried out by collecting documents related to the phenomenon being studied. Interviews were conducted with key informants, namely SMBR HR managers. The SMBR HR Manager is a key informant because he has extensive knowledge and experience related to the use of AI in HR management at SMBR. Key informant interviews were conducted online using the Google Meet online meeting application. Documents collected include annual reports, company policies, and laws and regulations related to HR management. These documents are used to complement interview data and provide a more comprehensive picture of the use of AI in HR management at SMBR.

3. Results and Discussion

PT Semen Baturaja Persero (SMBR) is one of the largest cement companies in Indonesia. This company was founded in 1974 and is headquartered in Palembang, South Sumatra. SMBR has two cement factories, namely: Baturaja I & II Factory in Baturaja, South Sumatera, and Panjang Factory in Panjang, Bandar Lampung. SMBR's production capacity reaches 2.3 million tons of cement per year. SMBR

cement products are marketed throughout Indonesia, as well as to several countries in Asia and Africa. The HR Department of PT Semen Baturaja Persero (SMBR) has an important role in supporting the achievement of the company's vision and mission. This department is responsible for managing the company's human resources, starting from recruitment and selection, training and development, performance appraisal, compensation and benefits, to industrial relations. The results of the study show that PT Semen Baturaja has utilized the use of artificial intelligence (AI) in the HR management process in the HR Department of PT Semen Baturaja Persero.^{9,10}

Increased process efficiency and effectiveness

AI can help companies save time and costs in the recruitment, training, and development process. AI is used to automatically process applications, screen qualified candidates, and conduct virtual interviews. By using AI, companies can save time and energy in the recruitment and selection process. AI is used to provide training and development tailored to employee needs. AI analyzes employee performance data so companies can know the skills and competencies that need to be developed. By using AI, companies can ensure that the training and development provided is in line with employee needs. AI is used to assess employee performance objectively and accurately. AI analyzes employee performance data so that companies can provide fair and appropriate assessments of employee achievements. By using AI, companies can increase employee satisfaction and drive better performance.¹¹⁻¹⁴

Improved quality of decision-making

AI helps companies to make more precise and accurate decisions in the HR field. AI is used to analyze HR data, such as performance data, training data, and salary data. By analyzing this data, AI provides valuable insights for companies to make better decisions in HR. AI is used to predict future employee performance. By using AI, companies can be more selective in selecting candidates who have the potential to be successful. AI is used to analyze employee performance data so that companies can

know the skills and competencies that need to be developed. By using AI, companies can ensure that the training and development provided is in line with employee needs. AI is used to assess employee performance objectively and accurately. By using AI, companies can provide fair and appropriate assessments of employee achievements. AI is used to determine compensation and benefits that are appropriate to employee performance. By using AI, companies can ensure that employees receive fair compensation and benefits.¹⁵⁻¹⁷

Increased employee satisfaction

AI can help companies provide better HR services, thereby increasing employee satisfaction. AI can be used to provide HR information and consulting services online. By using AI, employees can access HR information and consultations more easily and quickly. AI can be used to provide HR information online, such as HR policy information, HR procedures, and HR forms. By using AI, employees can access HR information anytime and anywhere. AI can be used to provide HR consulting services online, such as assistance in recruitment, training, and development processes. By using AI, employees can get the help they need more easily and quickly. The use of AI in HR services is still growing. In the future, AI is expected to play an increasingly important role in HR services. By using AI, employees can access HR information and consultations anytime and anywhere. This can increase ease of access and comfort for employees. AI can help companies save time and energy in providing HR services. This can increase the efficiency of HR services. AI can help companies provide higher-quality HR services. This can increase employee satisfaction.^{18,19}

4. Conclusion

The use of AI in HR management at SMBR has provided various benefits. The use of AI needs to continue to be developed so that it can provide maximum benefits for companies.

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