ПРАКТИЧЕСКИЕ АСПЕКТЫ УПРАВЛЕНИЯ МЕТАЛЛУРГИЧЕСКИМ ПРЕДПРИЯТИЕМ И HR-МЕНЕДЖМЕНТА/APPLIED ASPECTS OF MANAGEMENT OF METALLURGICAL ENTERPRISES AND HR - MANAGEMENT

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USING TECHNOLOGY IN HUMAN RESOURCE MANAGEMENT

Abstract:
Technology revolutionized in Human Resources Management (HRM) through tools like HRIS, AI, and social media recruitment. These advancements streamline processes, enhance decision-making, and improve employee engagement. However, challenges such as data privacy and the need for personal interactions remain. Balancing technology with human elements is crucial for effective HRM.

Keywords:
Human resource management, technology, artificial intelligence, performance management, recruitment, employee engagement, data analytic.

Introduction

Human Resource Management (HRM) has traditionally been a manual and paper-based process, involving repetitive administrative tasks such as maintaining employee records, processing payrolls, and managing recruitment processes. With the advent of modern technology, however, these traditional methods have become increasingly outdated, leading to the adoption of various technological tools designed to improve the efficiency and effectiveness of HR functions. This shift is driven by the need for organizations to manage a growing number of employees, facilitate global operations, and respond to a rapidly changing workforce environment. Technology enables HR professionals to automate routine tasks, gain real-time insights, and align human capital strategies with organizational goals [1]. This article delves into how technology impacts key areas of HRM, including recruitment, employee training, performance management, and employee engagement.

1.   Technology in Recruitment

Recruitment is one of the most affected areas by technological advancements. Traditional recruitment methods, such as newspaper advertisements and manual resume screening, have been largely replaced by online job portals, social media recruiting, and Applicant Tracking Systems (ATS). These systems allow HR professionals to reach a broader audience, streamline candidate selection, and enhance the overall recruitment process.

Artificial Intelligence (AI) has further transformed recruitment by enabling automated resume screening, initial interviews through chat-bots, and even predictive analytic to assess candidate suitability for a role. AI tools can evaluate a candidate's competencies and cultural fit by analyzing large datasets from various sources, such as social media profiles and past job experiences. This helps HR managers make informed decisions while saving time on manual screening.

2.   Performance Management

Performance management, another core HR function, has seen significant improvements due to technology [2]. Performance reviews, traditionally held once or twice a year, are now shifting towards more continuous feedback systems supported by cloud-based platforms. These platforms allow real-time performance tracking, enabling managers and employees to set goals, review progress, and provide feedback in a structured, data-driven way. Tools like Success Factors and Bamboo HR enable companies to create performance dashboards, providing employees with clear metrics and

expectations. These systems also integrate with employee learning and development programs to ensure that performance goals align with organizational growth strategies. By automating the performance management process, companies can reduce the administrative burden on HR departments and foster a more engaging and transparent work environment

3. Employee Training and Development

Technology has also revolutionized employee training and development [3]. Learning Management Systems (LMS), like Moodle and Coursera, offer employees access to training modules, certification programs, and development plans that they can complete at their own pace. Virtual Reality (VR) and Augmented Reality (AR) are becoming increasingly popular in training programs, offering employees immersive experiences that simulate real-life scenarios. With the help of AI and Machine Learning (ML), HR managers can now offer personalized training programs based on employee needs and job requirements. AI-based learning platforms analyze employee performance data to recommend training courses that align with individual career goals, thus fostering a culture of continuous learning.

4. Employee Engagement and Retention

Employee engagement has become a top priority for HR departments, with technology playing a critical role in measuring and enhancing it [4]. HR analytic tools and Employee Engagement Software (EES) like TINY pulse and Office vibe provide HR professionals with real-time feedback on employee satisfaction, productivity, and engagement levels. These platforms use surveys, polls, and sentiment analysis to assess employee morale and identify potential issues before they escalate into larger problems. Moreover, predictive analytic helps HR teams identify trends in employee turnover and develop retention strategies. By analyzing employee data, such as tenure, performance, and job satisfaction, AI algorithms can predict which employees are at risk of leaving and suggest interventions to improve retention. This proactive approach enables HR departments to retain top talent and reduce recruitment costs

5. HRIS and Data-Driven Decision-Making

The Human Resource Information System (HRIS) serves as a backbone for data management within HR department [5]. An HRIS integrates various HR functions, such as payroll, benefits administration, attendance tracking, and employee records, into a single system. This centralization allows HR teams to access accurate and up-to-date information quickly, improving decision-making capabilities. In addition to managing administrative tasks, HRIS platforms support strategic decision-making by providing HR managers with data analytic tools. For example, Workday and Oracle HCM Cloud offer dashboards that provide insights into workforce demographics, employee performance trends, and compensation metrics. These data-driven insights enable HR professionals to align human capital strategies with business objectives more effectively.

Challenges of Technology Integration in HRM

Despite the many advantages of using technology in HRM, there are also several challenges. Data privacy concerns are at the forefront, especially when handling sensitive employee information. Organizations must ensure compliance with data protection regulations, such as the General Data Protection Regulation (GDPR), to avoid legal issues and maintain employee trust. Another challenge is the digital divide, as not all employees may have access to the necessary technology or possess the skills required to use HR systems effectively. This necessitates ongoing training for both HR professionals and employees to ensure they can fully leverage technological tools. Finally, the rapid pace of technological advancements demands continuous upskilling of HR professionals to stay updated with new trends and tools. Organizations must invest in HR technology education to ensure their teams can adapt to future innovations in the HR field [6].

Conclusion

Technology has reshaped HRM in profound ways, making HR processes more efficient, transparent, and data-driven. From recruitment to performance management, training, and employee engagement, technological advancements have improved how HR departments operate. While challenges such as data privacy and the digital divide persist, the benefits of technology in HRM far outweigh the risks. As technology continues to evolve, HR professionals must embrace these tools to stay competitive and contribute to organizational success. The future of HRM lies in the integration of AI, ML, and data analytics, allowing HR departments to make more strategic decisions and foster a productive, engaged workforce. The integration of technology in Human Resource Management is no longer optional; it is essential for organizations aiming to remain competitive in today's fast-paced business environment.

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