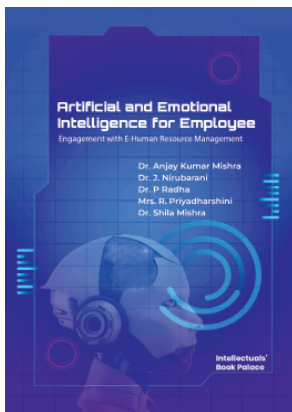


Workforce Management in the Era of Artificial Intelligence— A Critical Review of *Artificial and Emotional Intelligence for Employee: Engagement with E-Human Resource Management*

Priya Kumari Mishra 

Madhesh University, Nepal



Article History

Revised: March 26, 2026

Accepted: May 28, 2026

Email

pm7598682@gmail.com

Cite

Mishra, P. K. (2026). Workforce management in the era of artificial intelligence—A critical review of artificial and emotional intelligence for employee engagement with e-human resource management. *Madhesh Journal of Interdisciplinary Research (MJIR)*, 1(1), 147–153.



Copyright © 2026 The Author(s): Published by Madhesh University, Nepal. Distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0)

Abstract

The book *Artificial and Emotional Intelligence for Employee Engagement with E-Human Resource Management*, authored by Dr. Anjay Kumar Mishra, Dr. J. Nirubarani, Dr. P. Radha, Mrs. R. Priyadarshini, and Dr. Shila Mishra, presents research-driven perspectives across four sections. This paper reviews Chapter Four on workforce management following class discourse and underlines that every chapter of the book should be discussed chapter-wise and reviewed as an audiobook to broaden access and pedagogical use. Book explores how AI and emotional intelligence (EI) integrate within e HRM to improve workforce planning, administration, and employee self-service. It outlines workforce management practices, their benefits, and administrative processes enhanced by predictive analytics, automated scheduling, and digital self-service platforms. The authors examine how AI tools support diverse needs while EI-informed leadership and interpersonal practices mitigate emotional labor and strengthen engagement. Special attention is given to diversity, harassment prevention, and inclusive policy design, highlighting algorithmic bias risks and data-privacy concerns. The chapter recommends governance frameworks, EI training for managers, and participatory implementation strategies to ensure ethical, human-centered adoption. Illustrative cases and classroom reflections demonstrate practical applications across organizational contexts, offering actionable guidance for scholars and practitioners.

Keywords: chapter review, benefits, administration, employee self-service diversity, harassment

Introduction

The twenty-first century has witnessed remarkable advancements in information technology, artificial intelligence, and digital transformation. These developments have not only changed business operations but have also significantly influenced the field of Human Resource Management (HRM). Organizations are increasingly adopting

intelligent technologies to improve efficiency, productivity, and employee engagement. As a result, workforce management, which was once considered an administrative function, has become a strategic component of organizational success.

The book *Artificial and Emotional Intelligence for Employee Engagement with E-Human Resource Management*, written by Dr. Anjay Kumar Mishra, Dr. J. Nirubarani, Dr. P. Radha, Mrs. R. Priyadarshini, and Dr. Shila Mishra, examines the growing role of artificial intelligence and emotional intelligence in modern human resource practices. Among the various chapters presented in the book, the chapter on Workforce Management offers valuable insights into how AI technologies are transforming traditional HR activities.

This review critically evaluates the chapter on Workforce Management, discussing its major themes, practical implications, strengths, and limitations. The review also reflects on the relevance of the ideas presented by the authors in the context of contemporary organizations.

Overview of Workforce Management

Workforce management refers to the processes and activities through which organizations plan, organize, monitor, and optimize their human resources. Traditionally, workforce management involved attendance monitoring, employee scheduling, payroll processing, workforce planning, and compliance management. However, the increasing complexity of modern organizations has created challenges that cannot always be effectively addressed through conventional methods.

The authors begin the chapter by presenting real-world examples of organizations struggling with workforce-related challenges. These examples help readers understand the practical

difficulties faced by HR professionals in managing employee information, attendance records, payroll systems, and workforce planning activities. Through these cases, the authors establish the need for intelligent technological solutions capable of simplifying HR processes.

One of the strongest aspects of the chapter is its ability to connect theoretical concepts with practical organizational realities. Rather than discussing artificial intelligence in abstract terms, the authors demonstrate how AI-based systems are already being used in organizations to solve workforce management problems.

Artificial Intelligence and Employee Scheduling

A major focus of the chapter is the application of artificial intelligence in employee scheduling. Scheduling employees effectively is one of the most critical responsibilities of workforce management because it directly affects productivity, customer satisfaction, and employee well-being.

The authors explain that traditional scheduling systems often depend on manual decision-making, which can lead to inefficiencies and human errors. AI-powered scheduling systems, on the other hand, can analyze multiple variables simultaneously, including employee availability, competencies, workload requirements, and organizational priorities.

The healthcare sector is presented as an example where AI-assisted scheduling systems help allocate nurses according to patient needs and professional competencies. This intelligent approach ensures that the right employee is assigned to the right task at the right time. Such examples effectively demonstrate the practical value of AI in improving workforce utilization.

In my opinion, this section successfully highlights one of the most promising applications of artificial intelligence in HRM. However, the authors could have discussed potential challenges such as employee resistance to algorithm-based scheduling decisions or concerns regarding transparency in automated decision-making.

Shift Management and Workforce Flexibility

The chapter also explores the role of AI in managing employee shifts. Shift swapping and schedule adjustments often create administrative burdens for managers and HR professionals. Employees may struggle to find suitable colleagues to exchange shifts, while managers spend considerable time approving requests.

The authors describe how intelligent workforce management systems can simplify this process by identifying employees who are most likely to accept shift exchange requests based on historical patterns and availability data. Chatbots and voice-assisted technologies further enhance this process by allowing employees to communicate with the system in a natural manner.

This discussion reflects the growing importance of workplace flexibility in modern organizations. Employees increasingly value work arrangements that accommodate their personal needs and preferences. By enabling efficient shift management, AI contributes to a more employee-friendly work environment.

Time Tracking and Attendance Management

Another significant topic covered in the chapter is attendance management. Accurate attendance records are essential for payroll processing, productivity analysis, and workforce planning. Traditional attendance systems often involve manual processes that can be time-consuming and vulnerable to manipulation.

The authors discuss advanced technologies such as facial recognition systems and automated attendance tracking platforms. These technologies enhance accuracy and reduce opportunities for attendance fraud. The concept of "buddy punching," where one employee records attendance for another, is cited as an example of a problem that AI-enabled attendance systems can eliminate.

I found this section particularly relevant because attendance management remains a challenge in many organizations, especially in developing countries where manual systems are still widely used. The adoption of intelligent attendance systems has the potential to improve organizational accountability and efficiency.

Artificial Intelligence and Payroll Administration

Payroll administration represents one of the most repetitive and sensitive HR functions. Errors in payroll can significantly affect employee satisfaction and organizational credibility. The chapter highlights how AI technologies can automate payroll calculations, overtime management, tax deductions, and compliance-related activities.

The authors correctly argue that payroll processes are particularly suitable for automation because they involve structured data and repetitive calculations. AI-powered payroll systems can process large volumes of information quickly and accurately, reducing the likelihood of costly errors.

However, the authors also emphasize that human oversight remains necessary. While AI can perform calculations efficiently, HR professionals must review payroll outcomes and address exceptional situations that require judgment and contextual understanding.

This balanced perspective strengthens the credibility of the chapter because it acknowledges both the capabilities and limitations of artificial intelligence.

Employee Self-Service and Chatbots

One of the most interesting sections of the chapter discusses employee self-service systems and AI-powered chatbots. The authors argue that many HR inquiries are repetitive and administrative in nature. Employees frequently seek information regarding leave balances, attendance records, payroll details, and company policies.

Chatbots can provide immediate responses to such inquiries, reducing the workload of HR departments while improving service quality. Employees benefit from faster access to information, while HR professionals gain additional time to focus on strategic activities.

The discussion of employee self-service aligns with current trends in digital HR transformation. Modern employees increasingly expect convenient, technology-enabled services similar to those they experience in other aspects of daily life.

Benefits Administration and Personalized Support

The chapter further examines how artificial intelligence can improve benefits administration. Employee benefits often represent a substantial investment for organizations, yet many employees fail to utilize available benefits effectively.

AI systems can personalize benefits communication by analyzing employee demographics, preferences, and life circumstances. For example, younger employees may receive information about educational assistance programs, while older employees may

receive guidance related to retirement planning or healthcare benefits.

This personalized approach enhances employee engagement and ensures that organizational resources are used more effectively. I particularly appreciated this discussion because it highlights the human-centered applications of artificial intelligence rather than focusing solely on efficiency and automation.

Diversity, Inclusion, and Workplace Ethics

The chapter also addresses diversity and workplace inclusion. In recent years, organizations have placed increasing emphasis on creating fair and inclusive workplaces. Artificial intelligence can support these efforts by identifying potential biases in recruitment, compensation, promotion, and workplace communication.

The authors discuss AI tools that can detect discriminatory language, monitor diversity indicators, and provide confidential channels for reporting workplace harassment. Such applications demonstrate that AI can contribute not only to operational efficiency but also to organizational justice and ethical management.

Nevertheless, I believe the chapter could have included a more detailed discussion of algorithmic bias. AI systems are only as fair as the data on which they are trained. Therefore, organizations must remain vigilant to ensure that technological solutions do not unintentionally reinforce existing inequalities.

Workforce Planning and Strategic Human Resource Management

Perhaps the most forward-looking section of the chapter is the discussion on workforce planning. Strategic workforce planning requires organizations to anticipate future talent needs and

align human resource strategies with business objectives.

The authors explain how AI can analyze labor market trends, workforce demographics, employee turnover patterns, and organizational growth projections to support decision-making. Such predictive capabilities enable organizations to identify skill shortages, develop succession plans, and improve recruitment strategies.

This section effectively demonstrates the strategic potential of artificial intelligence. Rather than merely automating existing tasks, AI can help organizations make better long-term decisions regarding their workforce.

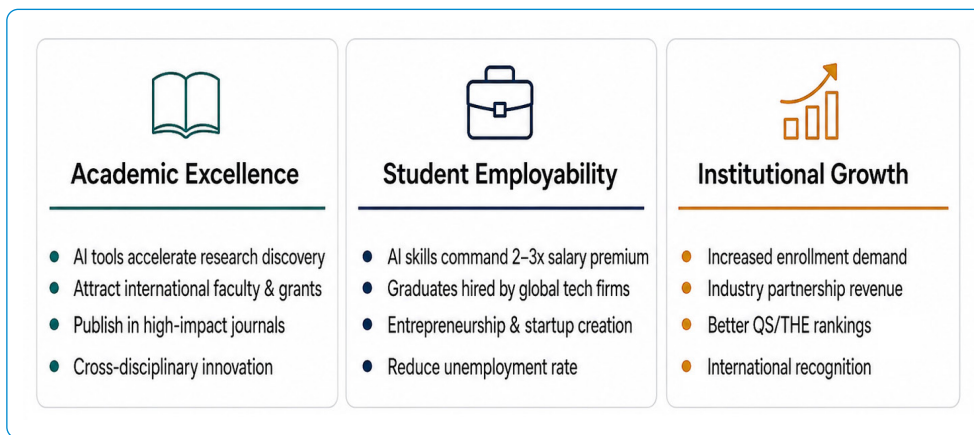
Strengths of the Chapter

The chapter possesses several strengths. First, it provides practical examples that make complex technological concepts easier to understand. Second, it covers multiple dimensions of workforce management, offering a comprehensive perspective. Third, the authors maintain a balanced approach by recognizing the continuing importance of human judgment alongside technological innovation.

The chapter is also highly relevant to contemporary organizational challenges and offers valuable insights for HR professionals, students, researchers, and organizational leaders.

Figure 1

Why universities should teach AI?



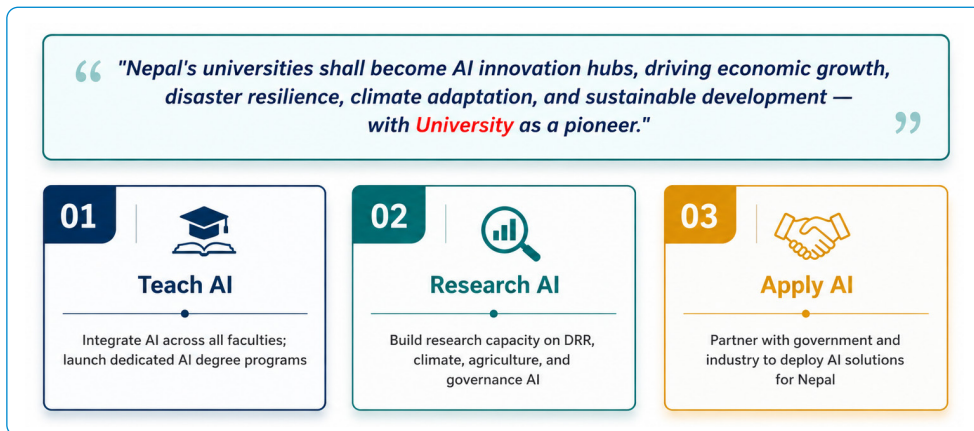
As a student of Management

As a student of Management, I found this chapter particularly informative and relevant because it connects theoretical concepts of Human Resource Management with practical workplace realities. The discussion on artificial intelligence and workforce management helped me understand how modern organizations are utilizing technology to improve efficiency, productivity, and employee engagement. While

studying management, we often learn about planning, organizing, staffing, and controlling resources; however, this chapter demonstrates how these functions are evolving in the digital era. It also encouraged me to think critically about the opportunities and challenges associated with AI-driven HR practices. Therefore, I believe this chapter is highly beneficial for management students who wish to understand the future direction of workforce management and human resource development.

Figure 2

Vision for Nepal (A Call to Action for Madhesh University and Nepal's Higher Education System)



Conclusion

The Workforce Management chapter in Artificial and Emotional Intelligence for Employee Engagement with E-Human Resource Management offers a timely and insightful examination of the relationship between artificial intelligence and human resource management. The authors successfully demonstrate how AI technologies are transforming workforce scheduling, attendance management, payroll administration, employee self-service, benefits administration, diversity initiatives, and workforce planning.

While certain ethical and implementation challenges could have been explored in greater detail, the chapter remains an informative and valuable contribution to the field of human resource management. It highlights both the opportunities and responsibilities associated with integrating artificial intelligence into organizational practices.

In conclusion, I believe that this chapter provides a strong foundation for understanding the future of workforce management. It encourages readers to view artificial intelligence not as a replacement for human expertise but as

a powerful tool that can enhance organizational effectiveness, improve employee experiences, and support strategic decision-making. For students, researchers, and HR practitioners interested in the digital transformation of human resources, this chapter is both relevant and thought-provoking.

Further Reading

For deeper understanding and contextual grounding of the book's themes, several related studies by the author group offer empirical and technical perspectives—on digital systems in developing-country contexts, recommendation and mapping platforms for engagement, Web 3.0 architectures, medical imaging with convolutional neural networks, entrepreneurship among returnee workers, and product-identification business operations.

Key References

Ananda, N., Kobayashi, S., Mishra, A. K., & Aithal, P. S. (2023). Mandala in operation of Web 3.0. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*, 7(1), 220–229. <https://doi.org/10.5281/zenodo.7727160>

- Jha, P. B., Mishra, A. K., & Aithal, P. S. (2023). Operation of vehicle maintenance system in context of developing countries emphasizing Nepal. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*, 7(1), 267–279. <https://doi.org/10.5281/zenodo.7790868>
- Jha, P. B., Nepal, B., Mishra, A. K., Dangi, N., & Bhandari, P. (2024). Enhancing event exploration and engagement: A social events networking platform leveraging cosine similarity recommendations and Google Maps integration. *Journal of Productive Discourse*, 2(1), 47–61. <https://doi.org/10.3126/prod.v2i1.65728>
- Mishra, A. K. (2023). Together we build human capital. *Apex Journal of Business and Management (AJBM)*, 1(1), 1–10. <https://doi.org/10.5281/zenodo.8402501>
- Mishra, A. K., & Mishra, S. (2024). AI influencing factors among students. *Rabi Sangyan*, 1(1), 1–8. <https://doi.org/10.5281/zenodo.14228049>
- Mishra, A. K., Ghimire, A., Joshi, M., Khatiwada, S., Joshi, N. R., Jha, P. B., & Aithal, P. S. (2023). Classification of pneumonia and COVID-19 using convolutional neural network. *International Journal of Health Sciences and Pharmacy (IJHSP)*, 7(2), 65–88. <https://doi.org/10.5281/zenodo.10001745>
- Mishra, A. K., Ghimire, M., & Aithal, P. S. (2023). Effects of foreign employment on returnee workers' attributes for entrepreneurship development. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 8(4), 106–118. <https://doi.org/10.5281/zenodo.10067247>
- Mishra, A. K., Jha, P. B., & Aithal, P. S. (2023). Business operation using identification of product in the context of developing countries emphasizing Nepal. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 7(1), 112–126. <https://doi.org/10.5281/zenodo.7798162>
- Mishra, A. K., Mishra, S., Nirubarani, J., Radha, P., & Priyadharshini, R. (2025). Employee engagement. In *Artificial and emotional intelligence for employee* (pp. 193–220). Intellectuals' Book Palace. <https://doi.org/10.5281/zenodo.14810271>
- Mishra, A. K., Nirubarani, J., & Radha, P. (2025). Artificial intelligence in human resource management. In *Artificial and emotional intelligence for employee* (pp. 1–126). Intellectuals' Book Palace. <https://doi.org/10.5281/zenodo.14810107>
- Mishra, A. K., Nirubarani, J., Radha, P., Priyadharshini, R., & Mishra, S. (2025). E-HRM. In *Artificial and emotional intelligence for employee* (pp. 221–241). Intellectuals' Book Palace. <https://doi.org/10.5281/zenodo.14810888>
- Nirubarani, J., Priyadharshini, R., & Mishra, A. K. (2025). Emotional intelligence. In *Artificial and emotional intelligence for employee* (pp. 127–192). Intellectuals' Book Palace. <https://doi.org/10.5281/zenodo.14810192>



