Human Resource Management 5.0

in the Age of Intelligent Economies and Responsible Artificial Intelligence

Dr. Jainendra Kumar Verma
Kamal Krishna
Abhishek Pandey

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Human Resource Management 5.0 in the Age of Intelligent Economies and Responsible Artificial Intelligence

Edited By

Dr. Jainendra Kumar Verma
Associate Professor
Department of Economics, Central University of Kashmir
Ganderbal, Jammu & Kashmir, India

Mr. Kamal Krishna
Sharda School of Business Studies
Sharda University, Greater Noida, Uttar Pradesh, India

Mr. Abhishek Pandey
Sharda School of Business Studies
Sharda University, Greater Noida, Uttar Pradesh, India

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Preface

The rapid convergence of artificial intelligence, intelligent automation, data analytics, and digital infrastructures is reshaping the foundations of contemporary organizations. As the global economy transitions toward what is increasingly described as the *Intelligent Economy*, the role of Human Resource Management (HRM) is undergoing a profound transformation. No longer confined to administrative or transactional functions, HR now stands at the strategic center of technological integration, ethical governance, workforce empowerment, and sustainable value creation.

Human Resource Management 5.0 in the Age of Intelligent Economies and Responsible Artificial Intelligence emerges at this critical juncture. The concept of HR 5.0 reflects a paradigm shift from technology adoption alone toward human-centered technological integration. While Industry 4.0 emphasized automation and efficiency, Industry 5.0—and by extension HR 5.0—prioritizes collaboration between humans and intelligent systems, ethical accountability, organizational justice, and sustainable workforce development. This evolution demands not only advanced technological capabilities but also moral clarity, strategic foresight, and inclusive leadership.

This edited volume brings together diverse scholarly perspectives that explore the multifaceted dimensions of HR 5.0. The chapters examine the integration of artificial intelligence in HR functions, the rise of people analytics as a strategic decision-making tool, the importance of explainable and ethical AI systems, and the redefinition of roles, skills, and leadership in human–AI collaborative environments. Together, they illuminate how organizations can balance technological advancement with workforce empowerment while maintaining trust, transparency, and fairness.

A central theme running throughout this book is the recognition that technology alone cannot guarantee organizational excellence. Sustainable performance in the Intelligent Economy requires ethical governance frameworks, responsible data practices, and a commitment to preserving human dignity within algorithm-driven systems. The future of HR lies not in replacing human judgment, but in augmenting it responsibly.

This volume is intended for researchers, academicians, policymakers, industry practitioners, and postgraduate students seeking to understand the strategic and ethical implications of AI-driven HR transformation. By offering conceptual insights and forward-looking perspectives, the book aims to contribute to ongoing scholarly discourse while providing practical relevance for organizations navigating digital transformation.

As editors, we hope this work stimulates critical reflection, encourages interdisciplinary dialogue, and inspires responsible innovation in the field of human resource management. The Intelligent Economy demands not only smarter systems, but wiser institutions—and HR 5.0 has a pivotal role to play in shaping that future.

Acknowledgement

The completion of *Human Resource Management 5.0 in the Age of Intelligent Economies and Responsible Artificial Intelligence* has been a collaborative intellectual journey, made possible through the support, guidance, and contributions of many individuals and institutions.

First and foremost, we extend our sincere gratitude to all contributing authors whose scholarly insights, rigorous research, and thoughtful perspectives form the foundation of this volume. Their commitment to advancing knowledge in the evolving field of HR 5.0 has enriched this work immeasurably. Each chapter reflects not only academic excellence but also a shared dedication to exploring the responsible integration of artificial intelligence, ethical governance, and sustainable workforce transformation.

We are deeply appreciative of the peer reviewers and academic colleagues who provided constructive feedback during the development of this manuscript. Their critical evaluations and suggestions significantly strengthened the theoretical clarity, coherence, and scholarly rigor of the book.

We also acknowledge the encouragement and institutional support provided by our respective universities and research communities. Their commitment to fostering interdisciplinary dialogue and innovation has played a crucial role in enabling this work.

Special thanks are extended to the editorial and publishing team for their professionalism, patience, and guidance throughout the review and production process. Their expertise has been invaluable in bringing this project to fruition.

Finally, we express our heartfelt gratitude to our families and mentors for their unwavering encouragement and understanding. Their support has been a constant source of motivation throughout this endeavor.

We hope that this volume contributes meaningfully to academic scholarship and professional practice, and that it inspires continued dialogue on building ethical, human-centered, and sustainable organizations in the Intelligent Economy.

With heartfelt appreciation,

Dr. Jainendra Kumar Verma

Kamal Krishna

Abhishek Pandey

About the Editors

Dr. Jainendra Kumar Verma is Associate Professor in the Department of Economics at the Central University of Kashmir. He holds a Ph.D. in Applied Economics from the University of Lucknow and has over a decade of teaching and research experience in higher education.

Dr. Verma qualified UGC-NET/JRF in ten subjects, including Economics, Management, Commerce, and Political Science. He was awarded the UGC Post-Doctoral Fellowship in 2014 and secured second rank in both his M.B.A. and Ph.D. coursework. His academic contributions include 32 research publications, including Scopus-indexed papers, focusing on entrepreneurship, MSMEs, finance, public policy, sustainability, and tourism economics.

He has co-authored ten books in the areas of entrepreneurship, sustainable development, tourism, and women's studies. Dr. Verma has successfully mobilized external and internal research funding amounting to ₹52.3 lakhs, including projects supported by ICSSR and the Ministry of Tourism. He has also filed patents on AI-based predictive analytics for financial risk management, human resource stress management systems, and IoT-based secure medical data transmission technologies.

Dr. Verma has supervised doctoral, M.Phil., and Master's dissertations and actively contributes to curriculum development, academic committees, and capacity-building programmes. He is a life member of several professional bodies, including the Indian Economic Association, Indian Commerce Association, and The Indian Econometric Society. His teaching and research interests include the Indian economy, public economics, financial institutions, industrial economics, entrepreneurship, and MSME development.

Mr. Kamal Krishna is an emerging academic and education professional with a strong multidisciplinary footprint across management, technology, and sustainability. Actively involved in major institutional initiatives, he has played key roles in organizing management development programs, international conferences, and workshops on research, with a focus on AI, innovation, leadership, and the future of work.

Mr. Krishna has an impressive publication record that includes multiple book chapters, contributions to edited books, and peer-reviewed research papers across areas such as entrepreneurship, human resource analytics, digital transformation, educational policy, and sustainable business. He frequently collaborates with faculty and researchers from reputed institutions across India, including professors from prominent central universities, strengthening a nationwide network of interdisciplinary scholarship.

He has presented his work at numerous national and international conferences, contributing to academic dialogue with clarity and rigour. He has also been successful in competitive forums, having won major pitching events, which reflects his ability to translate research into practical, high-impact solutions.

Mr. Krishna's professional trajectory demonstrates a sustained commitment to bridging theory and practice, fostering innovation in business education, and advancing collaborative research across India.

Mr. Abhishek Pandey is a Business Analytics scholar with a strong interdisciplinary orientation toward sustainable development and organizational excellence. He has demonstrated remarkable contributions in event management initiatives aligned with the United Nations Sustainable Development Goals (SDGs), integrating data-driven insights with socially responsible execution strategies. His work reflects a commitment to creating measurable impact through structured planning, stakeholder engagement, and outcome-oriented implementation.

With a keen interest in entrepreneurship and team building, Mr. Pandey actively explores innovative approaches to collaborative leadership and venture development. He is particularly passionate about leveraging analytics to enhance decision-making, optimize resource utilization, and strengthen team performance in dynamic environments. His academic pursuits and practical engagements collectively reflect a forward-thinking professional dedicated to sustainable growth, strategic innovation, and collective success.

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ABOUT THE EDITORS

Dr. Jainendra Kumar Verma
Associate Professor
Department of Economics, Central University of Kashmir
Ganderbal, Jammu & Kashmir, India

Mr. Kamal Krishna
Sharda School of Business Studies
Sharda University, Greater Noida, Uttar Pradesh, India

Mr. Abhishek Pandey
Sharda School of Business Studies
Sharda University, Greater Noida, Uttar Pradesh, India

ABOUT THE BOOK

Human Resource Management 5.0 in the Age of Intelligent Economies and Responsible Artificial Intelligence examines the transformative impact of artificial intelligence, intelligent automation, data analytics, and digital infrastructures on contemporary organizations. As the global economy advances toward what is increasingly termed the Intelligent Economy, Human Resource Management (HRM) is evolving from a traditionally administrative function into a strategic driver of technological integration, ethical governance, and sustainable workforce development.

This volume introduces the concept of HR 5.0, a human-centered paradigm that moves beyond automation and efficiency toward meaningful collaboration between humans and intelligent systems. While earlier industrial transformations emphasized productivity and digital adoption, HR 5.0 prioritizes ethical accountability, transparency, organizational justice, and inclusive leadership in AI-enabled workplaces.

Bringing together diverse scholarly perspectives, the book explores critical themes such as AI integration in HR functions, people analytics for strategic decision-making, explainable and responsible AI systems, and the redefinition of skills and leadership in human–AI collaborative environments. It underscores that sustainable organizational performance depends not merely on technological sophistication but on ethical governance frameworks and the preservation of human dignity within algorithm-driven systems.

Designed for researchers, academicians, policymakers, practitioners, and postgraduate students, this book offers conceptual insights and forward-looking perspectives to guide responsible innovation. It argues that the future of HR lies not in replacing human judgment, but in augmenting it thoughtfully and ethically in the Intelligent Economy.

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