



# TRANSFORMATION FOR SUSTAINABLE BUSINESS AND MANAGEMENT PRACTICES

Exploring the spectrum of Industry 5.0

Edited by

AARTI SAINI AND VIKAS GARG

# **Transformation for Sustainable Business and Management Practices**

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# Transformation for Sustainable Business and Management Practices: Exploring the Spectrum of Industry 5.0

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# Introduction

With changing times, the world is witnessing digital transformation in every industrial sector. The common man, businesses, and management are preparing themselves to enter the digitally enabled industry. This book aims to identify how digital transformation will introduce advanced technology to accelerate economic growth. The book is centered on empirical research, conceptual papers, and case studies of various industries in a global context that highlights the impact of digital transformations across the spectrum of business and industry. Industry 4.0 brought together robots, interconnected devices, and a fast network of data. The journey from Industry 4.0 to Industry 5.0 started when the companies began to allow customers to customize what they want. The Fifth Industrial Revolution will focus on co-operation between man and machine, as human intelligence works in harmony with cognitive computing. 5G is a new global wireless standard after 2G, 3G, and 4G networks. 5G enables a new kind of network that is designed to connect virtually everyone and everything including machines, objects, and devices.

With the digital transformation and planned introduction of 5G technology in the global business network, it becomes significant to understand the transformation from Industry 4.0 to Industry 5.0 for creating sustainable business and management practices. With the penetration of artificial intelligence, virtual reality, blockchain technology, Internet of Things (IoT), and collaborative robot, it is vital to understand how people and organizations are adopting the transformative changes in their practices. The group of connected advanced technologies provides the foundation for increased digitization in business and management in world economies. Industry 4.0 emerged with the arrival of automation technologies, IoT, and the smart factory. Industry 5.0 takes the next step, which involves leveraging the collaboration between increasingly powerful and accurate machinery and the unique creative potential of the human being. Unlike the concept of Industry 4.0, Industry 5.0 is not restricted to only manufacturing sectors, but it aims to solve many businesses, social, and environmental problems with the help of physical and virtual spaces. It is necessary to understand how this change is going to take place in various sectors of the economies. The book will serve as a guide to the researchers and various industry sectors like manufacturing, services, and management. Readers may discover a reliable and accessible one-stop resource of information. The book aims to provide an understanding of the foundations of various changes which are predicted to happen. We plan to start the journey for readers to understand how the transformation happened and how

it has evolved with time. The editors set the platform for the authors to make a valuable contribution in this emerging field in form of substantial and robust chapters. The idea behind this book is to simplify the journey of aspiring readers, students, and researchers to understand the technology and innovations. The book will provide a comprehensive understanding of managerial applications in business and management during the transformational phase of 5G.

Industry 5.0 is the re-humanization of the race toward automation. It's the recognition of robotic, automated, digital advances, and the emergence of insight, innovation, and creativity that comes from the human being. This book aims to help researchers and practitioners who are working in the business and management domains. It will serve as a useful guide for industry and academia. It is also aimed to serve the knowledge need of beginners as well the advanced users to understand concepts of digital transformation in the business world.

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The editors would like to acknowledge the help of all the people involved in this project and, more specifically, the authors and reviewers who took part in the review process. Without their support, this book would not have become a reality. First, the editors would like to thank each one of the authors for their contributions. Our sincere gratitude goes to the chapter's authors who contributed their time and expertise to this book. Second, the editors wish to acknowledge the valuable contributions of the reviewers regarding the improvement of quality, coherence, and content presentation of chapters. Most of the authors also served as referees; we highly appreciate their double task. We owe an enormous debt of gratitude to those who gave us detailed and constructive comments on few chapters and pushed us to clarify concepts, explore particular facets of insight work, and explain the rationales for specific recommendations.

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Editors