

DIGITAL SUPPLY CHAINS

INTEGRATING IT INNOVATIONS INTO SCM STRATEGIES



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Digital Supply Chains Integrating IT Innovations into SCM Strategies



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Digital Supply Chains Integrating IT Innovations into SCM Strategies

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Preface

In the rapidly evolving global economy, the digitization of supply chains has emerged as a critical enabler of efficiency, agility, and resilience. This book, *Digital Supply Chains: Integrating IT Innovations into SCM Strategies*, explores the transformative power of digital technologies and their strategic integration into modern supply chain management (SCM). It aims to provide a comprehensive understanding of how digital innovations such as artificial intelligence, blockchain, Internet of Things (IoT), big data analytics, and cloud computing are reshaping traditional supply chain paradigms.

The impetus for writing this book stems from the growing need for businesses, academics, and policymakers to comprehend and harness the potential of digital supply chains. In an era marked by globalization, unpredictable disruptions, and rapidly changing customer expectations, the strategic deployment of IT solutions in SCM is no longer optional—it is imperative. Through detailed analysis, real-world case studies, and current research insights, this book offers a robust framework for navigating digital transformation in supply chain environments.

This work is intended for a broad audience, including students, educators, practitioners, and supply chain professionals seeking to bridge the gap between traditional practices and digital innovation. Each chapter addresses key concepts, technological advancements, implementation challenges, and future trends, ensuring a holistic and practical perspective.

We hope this book contributes to a deeper understanding of the digital revolution in supply chain management and inspires new approaches to achieving operational excellence. As technology continues to evolve, so too must the strategies that govern our supply chains—toward smarter, more sustainable, and highly integrated systems.

Acknowledgement

We, the authors of Digital Supply Chains: Integrating IT Innovations into SCM Strategies, express our heartfelt gratitude to all those who have supported and inspired us throughout the journey of bringing this book to fruition.

First and foremost, we extend our sincere appreciation to our academic mentors, research supervisors, and faculty members whose guidance and encouragement were instrumental in shaping the foundation of this work. Their expertise and critical insights helped refine our thoughts and expand our understanding of the complex relationship between digital technologies and supply chain management.

We are deeply thankful to the industry professionals, supply chain managers, and IT experts who generously shared their experiences and real-world perspectives. Their contributions provided us with practical knowledge that enhanced the relevance and applicability of our research.

Our collective gratitude goes to the institutions and departments we are affiliated with, for providing us with the resources, environment, and academic freedom necessary to undertake this interdisciplinary project. We also acknowledge the unwavering support of the editorial and publishing team, whose meticulous efforts ensured that our work reached its final form with clarity and coherence.

To our families and loved ones, your patience, support, and understanding during the countless hours of research and writing have been our greatest strength. Your constant motivation inspired us to stay committed and focused throughout this endeavor.

Finally, we dedicate this book to researchers, professionals, and students in the fields of supply chain and information technology. We hope this contribution encourages deeper inquiry, innovation, and collaboration in building efficient, resilient, and future-ready digital supply chains.

Arifa Haseen

Vidya Bhegade

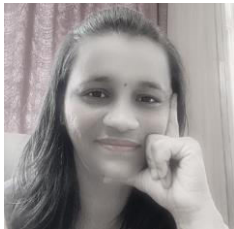
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About the Authors



Arifa Haseen is a UGC-NET qualified academician, researcher, and author with a strong background in business education and public policy. She holds an MBA in Business Economics and has received two Gold Medals for academic excellence. With over six years of teaching experience and expertise in UPSC content creation, Arifa blends scholarly insight with practical application. She has served as an Assistant Professor and placement coordinator, contributing actively to academic events and research. Passionate about education, nation-building, and writing, she aims to inspire through her work and believes in the transformative power of knowledge and well-crafted, purpose-driven literature.



Vidya Bhegade is an Assistant Professor at Indrayani Mahavidyalaya, Talegaon Dabhade, Pune, and a Research Scholar at Symbiosis International (Deemed) University, Pune, currently pursuing a Ph.D. in Management. Her research focuses on integrating Artificial Intelligence in higher education. With multiple publications to her credit, she explores digital transformation, technology-driven pedagogy, and strategic innovation. This book reflects her interest in how technologies like AI, IoT, blockchain, and cloud computing reshape supply chains. Vidya's work bridges academic rigor and practical relevance, inspiring educators, and learners to adopt innovative, tech-enabled approaches in both education and business domains.



Alok Agarwal, a Program Director at Amdocs Development Center India LLP in Pune, is also a dedicated Research Scholar at Symbiosis International (Deemed) University. With a Master's in Computer Applications, he is currently pursuing his Ph.D., specializing in Customer Relationship Management (CRM) within the dynamic telecom sector. Alok is deeply passionate about digital transformation, and his research focuses on enhancing system efficiency through cutting-edge technologies like Generative AI, cloud computing, and IoT. Bringing over 24 years of experience in the IT industry, he consistently champions an innovation-driven mindset to deliver exceptional value to his customers and to Amdocs. This book is a testament to his profound interest in how modern technologies are revolutionizing supply chains, making them more agile, intelligent, and customer-centric.



Viraj P. Tathavadekar is a distinguished supply chain management expert with over 20 years of experience in digital transformation and sustainable supply chain innovation. Currently serving as Enterprise Functional Architect at Blue Yonder India, he holds a Doctor of Business Administration from Swiss School of Business Management and multiple MBAs in supply chain specializations. Dr. Tathavadekar is a prolific researcher with 16+ peer-reviewed publications and has authored a comprehensive book on sustainable supply chain management. His expertise spans AI/ML integration, circular economy implementation, and enterprise architecture across oil & gas, pharmaceuticals, and FMCG sectors.

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