

Supply Chain Logistics – The Competitive Arena for Companies Today

Supply Chain Logistics Management presents a comprehensive introduction to supply chain management, from global strategy, contracts, and current technology applications down to the basic logistics of transportation, warehousing and materials handling. The Third Edition presents a vision of the future of business logistics and supply chains and their critical role in overall enterprise competitiveness. This volume by a highly recognized author team will serve students and professionals as both an introduction and a comprehensive professional reference for managers.

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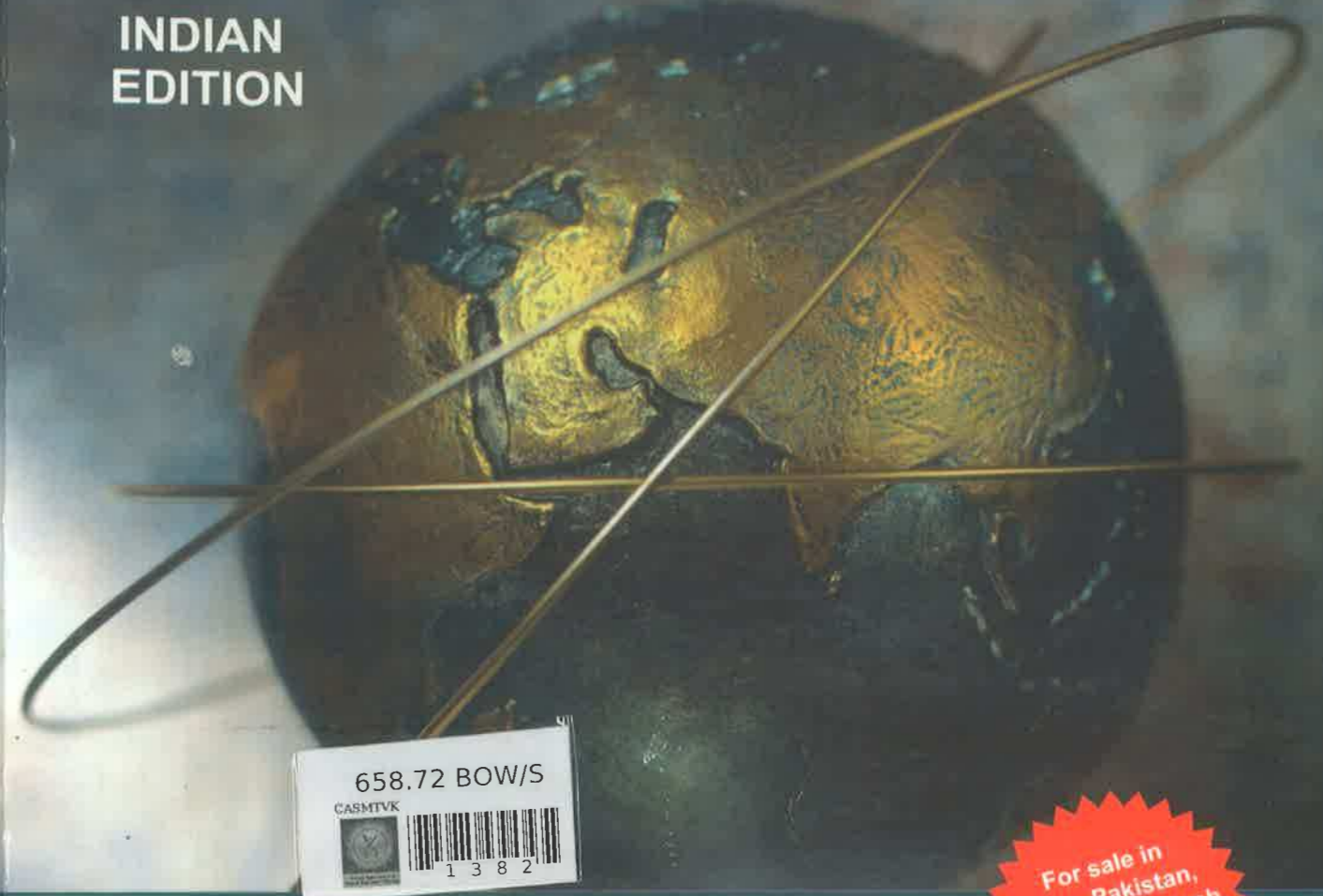
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Supply Chain Logistics Management

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David J. Closs

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SUPPLY CHAIN LOGISTICS MANAGEMENT

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This book is dedicated to our wives Terry, Noel, and Ann, and families for their time, encouragement, and patience for it is the authors' families who ultimately pay the dearest price, and to Dr. Donald A. Taylor, deceased, who was a guiding force in all our careers.

About the Authors

Donald J. Bowersox is University Professor and Dean Emeritus at Michigan State University. He received his Ph.D. at Michigan State and has worked in industry throughout his career. He is the author of numerous articles in publications such as the *Harvard Business Review*, *Journal of Marketing*, *Journal of Business Logistics*, and *Supply Chain Management Review*. He is coauthor of *Start Pulling Your Chain: Leading Responsive Supply Chain Transformation*, published in 2008. Dr. Bowersox has led a number of industry-supported research studies investigating the best practices of logisticians in North America and around the world. He is a frequent speaker at industry and academic meetings.

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Preface

Over the last seven decades, the discipline of business logistics has advanced from the warehouse floor and transportation dock to the boardroom of leading global enterprises. We have had the opportunity to be actively involved in this evolution through research, education, and advising. *Supply Chain Logistics Management* encompasses the development and fundamentals of the logistics discipline within a supply chain structure. It also presents our vision of the future of business logistics and supply chain management and their role in enterprise competitiveness.

Although individually and collectively the three authors have written extensively on various aspects of logistics, the decision to initially write and subsequently revise *Supply Chain Logistics Management* represents the synthesis of many years of research, augmenting and, in many ways, supplanting earlier works of the authors published by McGraw-Hill. The union of ideas presented in this text provides an integrated supply chain framework for the study of logistics, serves to expand the treatment of supply chain management by placing it firmly in the context of integrated business strategy, and highlights the increasing importance of logistics in the supply chains supporting a global economy.

Logistics includes all the activities required to move product and information to, from, and between members of a supply chain. The supply chain provides the framework for businesses and their suppliers to jointly deliver goods, services, and information efficiently, effectively, relevantly, and in a sustainable manner to customers. *Supply Chain Logistics Management* presents the mission, business processes, and strategies needed to achieve integrated logistical management. We hope the text achieves three fundamental objectives: (1) presents a comprehensive description of existing logistical practices in a global economy, (2) describes ways and means to apply logistics principles to achieve competitive advantage, and (3) provides a conceptual approach for integrating logistics as a core competency within enterprise supply chain strategy.

For their specific suggestions regarding the manuscript, our appreciation goes to Hugh Turner, University of Maryland; Soonhung Min, University of Oklahoma; Ted Stank, University of Tennessee; Robert Novack, Penn State University; David Borst, Concordia University; Charles Peterson, Northern Illinois University; John Mawhinney, Duquesne University; Elliot Rabinovich, Arizona State University; Chris I. Enyinda, Alabama A&M University; and Hugh S. Turner, University of Maryland, all of whom provided detailed reviews and offered numerous suggestions for improving the presentation.

We also wanted to acknowledge the staff at McGraw-Hill/Irwin for their guidance and efforts on behalf of the book: Richard Hercher, Executive Editor, Operations and Decision Sciences; Rebecca Mann and Christina Lane, Editorial Coordinators; Dana Pauley, Project Manager; and Jaime Halteman, Marketing Manager. Further assistance was provided by Michelle Gardner, Project Manager, Laserwords Maine.

As active members of the Council of Supply Chain Management Professionals, we have been the fortunate recipients of contributions by many council members to the development of this manuscript. In particular, we wish to acknowledge the assistance of Rick Blasgen, president and CEO of the Council of Supply Chain Management Professionals, and the CSCMP staff who maintain an open door to the academic community.

Over the past 45 years, the business executives who have attended the annual Michigan State University Logistics Management Executive Development Seminar have been exposed to the basic concepts presented in the text and have given freely of their time and experience. We also acknowledge the long-standing support to Michigan State logistics, through the funding of the endowed chairs, provided by the late John H. McConnell, founder of Worthington Industries.

The number of individuals involved in teaching logistics around the world expands daily. To this group in general, and in particular to our colleagues at Michigan State University, whose advice and assistance made it possible to complete and enhance this text, we express our sincere appreciation.

Teachers receive continuous inspiration from students over the years, and in many ways the day of judgment in an academic career comes in the seminar or classroom. We have been fortunate to have the counsel of many outstanding young scholars who currently are making substantial impact on the academic and business worlds. In particular, we appreciate the input of students who have used this text in manuscript form and made suggestions for improvement. We also acknowledge the contributions of current and former doctoral students, particularly Drs. Judith Whipple and Thomas Goldsby, who participated extensively in case development and editorial support. Student Research Assistant John Bowersox provided valuable support throughout manuscript preparation and managed the complex process of obtaining publication permissions. Appreciation is extended to Major G. Scott Webb and Brian Pease, who assisted in updating materials for this edition.

We wish to acknowledge the contributions of Felicia Kramer and Pamela Kingsbury, for manuscript preparation on several earlier versions of this text, and Cheryl Lundeen, who prepared many drafts of the manuscripts. Without Felicia, Pam, and Cheryl, this long published text in its many variations would not be a reality.

With so much able assistance, it is difficult to offer excuses for any shortcomings that might appear. Any faults are solely our responsibility.

Donald J. Bowersox

David J. Closs

M. Bixby Cooper

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PART ONE

Supply Chain Logistics Management

Part 1 establishes the strategic importance of logistics to achieving business success by creating value throughout domestic and global supply chains. The initial chapter scopes the current business attention to supply chain management. The supply chain provides the framework within which logistical strategies are developed and executed. Logistics, the primary topic of this book, is introduced in Chapter 2. The concept of integrated logistics is developed by discussing the ways specific work tasks combine to support customer accommodation, manufacturing, and procurement. Chapter 3 describes the importance of customer accommodation to successful logistics. The value created by logistics can serve as a powerful driver of customer success. Chapter 4 introduces procurement and manufacturing. The combination of customer accommodation, procurement, and manufacturing represents the supply chain operational areas that are linked and supported by logistics. Chapter 5 presents an overview of information technology that is specifically applicable to supply chain logistics. A framework is developed to serve as a format for presenting specific technology applications in supply chain logistics operation and design. Part 1 concludes in Chapter 6 with a discussion of integrated operations planning. One of the key challenges in integrated supply chain management is cross-functional and cross-enterprise planning and operational implementation.

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