

PREFACE

Regardless of the position persons hold in an organization, or what they do in life, everyday they will be impacted by supply chain management. For many firms supply chains have become a strategy for success to better serve customers and improve the bottom line. Supply chains can deliver products and services, but how efficiently is determined by how well they are managed. In the last few decades firms, like Toyota, have introduced a set of principles, referred to as “lean” principles, that improve efficiency wherever applied. Integrating lean into an operational area, like supply chains, brings the opportunity to use the benefits of supply chain management coupled with the efficiency of lean as a strategic advantage. The act of improving supply chains with lean makes the supply chain strategy more productive and attractive as a tool for achieving business performance success.

The purpose of this book is to describe how lean and supply chain management can be combined to achieve world-class business performance. To accomplish this purpose, the book contains both basic material on lean and supply chain management, as well as content from current journal research findings, strategies, issues, concepts, philosophies, procedures, methodologies, and practices in managing a lean supply chain. Presented in a topical fashion, the chapters deal with a wide range of subjects that support, nurture, and advance principles, concepts, and methodologies of lean supply chain management.

This book has been designed for university students in an upper-level undergraduate course or a graduate business or engineering course on lean management or supply chain management. This book does not assume the reader has had any exposure to the terminology and technology commonly found in the field of supply chain management, nor any mathematical background. The students who have had a basic operations management or industrial management course may find they will more quickly grasp the content in this book, but such background is not required to use this book. All important terminology, necessary to fully utilize this book, is defined within the book. Throughout the content, terminology is italicized and followed by the definition. The location of the initial definitions can be found using the index at the end.

This book is organizationally structured to include common educational pedagogy designed to aid the reader in understanding the content of each chapter.

In addition to the basic subject content, each chapter includes the following seven sections:

- (1) *Learning Objectives* — Students should use these declarative sentences as a statement of what they can expect to find in the chapter and as a review tool to ensure they have attained the basic knowledge objectives;
- (2) *Introduction* — This brief section usually introduces important terms and is used to relate the contents of the chapter to lean supply chain management principles;
- (3) *Summary* — At the end of each chapter a brief summary is presented to remind students of major points;
- (4) *Review Terms* — Throughout the book the terms are italicized and restated here to remind students of important terminology and also serve as a quick guide to abbreviations;
- (5) *Discussion Questions* — A set of discussion questions are presented as a means to stimulate ideas on content and further thinking;
- (6) *Questions* — In Part I only, questions are listed that can be used as assignments by faculty or a self-testing check to see if students have learned the basic topics of the chapter;
- (7) *References* — All of the references used for materials throughout the chapters are listed here, and students can use these reference citations to locate publications to further their knowledge of specific content mentioned or referenced in the chapter.

This book also contains subject and author indices for referencing important terminology. The first page listing of each term in the subject index will be the term's definition location.

This book's chapters are organized into two parts. Part I, "Introduction to Lean and Supply Chain Management," consists of three chapters. In Part I, Chapter 1, "Lean," a basic overview of lean concepts, principles and methodologies is presented, creating a foundation for understanding for those who know little about the subject, or for those who want a review. In Part I, Chapter 2, "Supply Chains," a basic overview of supply chain and supply chain management concepts, principles, and methodology is presented. This chapter identifies problems, trends, decision making, and global issues in managing supply chains. In Part I, Chapter 3, "The Nexus of Lean and Supply Chain Management," a synthesis of combined lean and supply chain principles is presented to establish a set of lean supply chain management principles that will be the major focus of the rest of the book.

In Part II, “Topics in Lean Supply Chain Management,” a series of nine chapters round out the rest of the book. The topics are: Chapter 4 — leadership, Chapter 5 — customer value focus, Chapter 6 — aligning strategy, tactics, and operational plans, Chapter 7 — ethics, trust, and collaboration, Chapter 8 — globalization and culture, Chapter 9 — information systems, Chapter 10 — new product development, Chapter 11 — e-commerce, and Chapter 12 — outsourcing. These chapters seek to explain and expand on topical areas related to lean supply chain management principles. The organizational content is fairly consistent. They begin with an introduction to provide an overview of the topical area. This is followed in the latter section with an exploration of research and recent publications relating the chapter’s topics to lean supply chain principles. The content is based largely upon the most recent research in the respective area. The idea behind the later topics section is to provide the reader with an essential summary of critical, recent research and practitioner recommendations on how lean supply chains should be managed.

While this book ends with a brief epilog statement, the subject of lean supply chain management continues to evolve and offer exciting changes and challenges for managers. May the lean supply chain management principles contained in this book be a competitive advantage for those willing to learn and apply them.

While many people have had a hand in the preparation of this book, its accuracy and completeness are the responsibility of the authors. For all errors that this book may contain, we apologize for them in advance.

Marc J. Schniederjans
Dara G. Schniederjans
Ashlyn M. Schniederjans