

INVENTORY STRATEGY



**Maximizing Financial, Service,
and Operations Performance
with Inventory Strategy**

EDWARD H. FRAZELLE, PHD

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SERVICE, AND OPERATIONS
PERFORMANCE WITH
INVENTORY STRATEGY**

EDWARD H. FRAZELLE, PHD



New York Chicago San Francisco Athens London
Madrid Mexico City Milan New Delhi
Singapore Sydney Toronto

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This book is dedicated to my Lord, Savior, Best Friend, and Teacher, Jesus Christ, Who blessed me with the experiences and abilities to share these lessons. This book is also dedicated to my gorgeous wife, Pat, who for 27 years has patiently allowed me to have these experiences and encouraged me in them. Finally, this book is dedicated to our two children, Kelly and Andrew; none finer.

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CONTENTS

List of Figures	ix
Preface	xiii
Acknowledgments	xvii

CHAPTER ONE

INTRODUCTION	1
1.1 What's the Problem?	2
1.2 More or Less	6
1.3 Optimization	10
1.4 To(o) Lean or Not To(o) Lean?	17
1.5 The Inventory Journey	18

CHAPTER TWO

INVENTORY FUNDAMENTALS	19
2.1 Inventory Integrity	20
2.2 Inventory Philosophies	22
2.3 Inventory Types	23
2.4 Out of Stock Conditions	43
2.5 Planning Parameters	44
2.6 Financial Terms	47
2.7 Demand Terms	58

2.8 Decision Variables	60
2.9 Inventory Interdependencies	65

CHAPTER THREE

INVENTORY OPTIMIZATION	67
3.1 RightSKUs: SKU Optimization	69
3.2 RightCast: Forecast Optimization	80
3.3 RightTimes: Lead Time Optimization	84
3.4 RightLots: Lot Size Optimization	90
3.5 RightPloy: Inventory Deployment Optimization	95
3.6 RightSight: Inventory Visibility Optimization	100
3.7 RightRate: Inventory Carrying Rate Optimization	103
3.8 RightStock: Inventory Optimization	106

CHAPTER FOUR

INVENTORY IN SUPPLY CHAIN STRATEGY	109
4.1 Inventory and Logistics	110
4.2 Inventory and Customer Service	115
4.3 Inventory and Inventory	120
4.4 Inventory and Supply	120
4.5 Inventory and Transportation	124
4.6 Inventory and Warehousing	131
4.7 Inventory and the Supply Chain	135
4.8 Beyond S&OP	139
Glossary	147
Index	155

LIST OF FIGURES

CHAPTER 1

- 1.1 Honda's RightStock Journey: From Worst to First
- 1.2 Sometimes More and Sometimes Less
- 1.3 Total Logistics Cost Elements for Optimization
- 1.4 Multichannel Customer Service Policy
- 1.5 Supply Chain Logistics Optimization Surfaces

CHAPTER 2

- 2.1 Inventory Management Maturity Phases
- 2.2 Push-Pull Decision Factors
- 2.3 Safety Stock Optimization for a Large Aerospace Company
- 2.4 RightCast Forecast Bias Analysis
- 2.5 RightLots Lot Size Optimization Analysis for a Large Bottler
- 2.6 RightStock Buckets of Inventory Analysis for an HVAC SKU
- 2.7 RightStock Excess Inventory Analysis
- 2.8 Excess Inventory Causes and Pareto for an HVAC Company
- 2.9 RightStock Project Plan for a Large HVAC Company
- 2.10 Inventory Stage Optimization for an Engine Manufacturer
- 2.11 Rate of Increase in Catastrophic Incidents
- 2.12 RightBuild™ Seasonal and Build Inventory Example for Frozen Food
- 2.13 Inactive Inventory Analysis for a Large Mining Company

- 2.14 Typical Part Life Cycle Transition Curve
- 2.15 RightLife Inventory Profile for a Large CPG
- 2.16 Inventory Maturity Optimization for a Large CPG
- 2.17 Average Inventory Value Computation for a Company
- 2.18 RightStock Inventory Optimization for a Food and Beverage Company: B SKU
- 2.19 RightStock Inventory Optimization for a Food and Beverage Company: C SKU
- 2.20 RightStock Inventory Optimization: Slow-Moving CPG SKUs
- 2.21 Inventory Management Dynamics
- 2.22 Lot Size Optimization Curve
- 2.23 RightLots Optimization for a Major Textile Company
- 2.24 RightStock Inventory Simulation for a Large Toy Company

CHAPTER 3

- 3.1 RightStock Inventory Model
- 3.2 Pareto's Law at Work in Biotech SKU Revenue
- 3.3 RightSKUs Analysis for a Large Service Parts Organization
- 3.4 RightSKUs Analysis in the Food and Beverage Industry
- 3.5 Case Volume Versus Number of SKUs
- 3.6 Inventory Investment Versus Number of SKUs
- 3.7 Out of Stocks Versus Number of SKUs
- 3.8 Total Supply Chain Cost per Case Versus Number of SKUs
- 3.9 GMROI Versus Number of SKUs
- 3.10 Most Valuable SKU Analysis for a Plastics Company
- 3.11 Incremental RightSKUs Implementation
- 3.12 Forecast Accuracy and Inventory Savings
- 3.13 RightCast Simulation for a Large Toy Company

- 3.14 RightCast Simulation Results for a Large Toy Company
- 3.15 Inventory Investment Versus Days of Lead Time for a Food Client
- 3.16 RightTimes Lead Time Simulation for a Large Toy Company
- 3.17 RightTimes Simulation Results for a Large Toy Company
- 3.18 RightLots Lot Size Deviation Analysis in a Food and Beverage Company
- 3.19 RightLots Simulation for a Large Toy Company
- 3.20 RightLots Simulation Results for a Large Toy Company
- 3.21 Deployment Optimization for Semiconductor Parts
- 3.22 Multi-Echelon Deployment Optimization
- 3.23 RightSight Visibility Solution Template
- 3.24 RightRate Simulation for a Large Toy Company
- 3.25 RightRate Simulation Results for a Large Toy Company
- 3.26 RightStock Simulation for a Large Toy Company
- 3.27 RightStock Simulation Results for a Large Toy Company

CHAPTER 4

- 4.1 RightChain Model of Supply Chain Logistics
- 4.2 Frazelle's Framework of Supply Chain Logistics: Descriptive
- 4.3 RightChain Framework of Supply Chain Logistics
- 4.4 Customer Service Policy for a Semiconductor Company
- 4.5 Inventory Investment Versus Fill Rate for a Health and Beauty Company
- 4.6 Delivery Frequency Optimization for a Major Retailer
- 4.7 RightBuys Sourcing Optimization for a Global Manufacturer
- 4.8 Inventory Investment and Supply Chain Network Design
- 4.9 Inventory and Shipping Frequency
- 4.10 Shipping Frequency Optimization Summary

- 4.11 Inventory and Modes of Transportation
- 4.12 Tying It All Together
- 4.13 Wrong Chain Model of Supply Chain Suboptimization
- 4.14 RightChain Supply Chain Integration Model
- 4.15 RightChain Planning Process
- 4.16 RightChain Supply Chain Scoreboard
- 4.17 RightChain Analytics Portal Home Page

P R E F A C E

I have been consulting, teaching, and researching in supply chain strategy for 30+ years. I have traveled in more than 72 countries, worked in countless industries, and faced what seems to be the full gauntlet of supply chain issues. Over the last three years the Lord led me through a series of very intense projects with a common focus: inventory. From mining, to food, to aerospace, to retail, to electronics, to computing, to consumer packaged goods, to bottling, in North America, South America, Europe, and Asia, nearly every project had inventory optimization at the heart of it. In addition, many of the projects resulted in highly profitable increases in inventory levels. In one amazing sequence of projects the very distribution center we helped Hallmark close as a part of its inventory reduction was acquired by Coca-Cola Consolidated as part of our inventory expansion with that company.

I am not normally led through those types of themed experiences unless the Lord has a strong lesson for me and my clients in it. I asked Him what His message was for this time. He seemed to be saying, “Inventory strategy.” I asked Him, Lord, why inventory strategy? He seemed to be saying, “Because people are so consumed with reducing inventory in the face of circumstances where more is required that they are becoming overwhelmed. My Ways are not those of lack and lean but of abundance and blessing. What some call waste, I call margin: the margin needed to balance life at work, life with family, and life with Me. What some call waste, I call an opportunity to generously give to others.”

He also does not seem to be too happy with the inventory shell games that go on and the idolatry of companies known for their inventory prowess that have hidden their inventory in their suppliers’ warehouses.

In the middle of this year I hit an unusual lull between projects. To fill the time I began to write a playbook on inventory management requested by one of our clients. At the Lord's prompting, the playbook slowly started to take the form of a real book. That's what you are reading: an inventory playbook demonstrating that less is not always more and more is not always less and advising you to *run the numbers to figure it out*.

I have watched highly effective professionals struggle in deciding how much inventory to carry. They are beat up, thrown under the bus, and sometimes let go if they have too much inventory, have too little inventory, or can't figure out where to locate it. The struggle often comes because inventory is a business matter, a financial matter, a service matter, and an operational matter. Inventory levels also are related to the performance of manufacturing, procurement, transportation, and sales. Sometimes inventory is an asset, and sometimes a liability. All these things are true. The inability to rationalize and optimize inventory across those interdependent and fluctuating concerns is normally the root of the conflicts and strife. *Inventory Strategy* and our RightStock™ model are attempts to unify and rationalize those often conflicting views and perspectives.

After I taught this approach in a recent seminar in Tokyo I had an unusual question from a lady in the audience. She asked, "Dr. Frazelle, if we figure this out, what will we do with our time?" I could tell the Lord wanted to speak directly to her and many in the audience. He gave me a vision of the late and sleepless nights she was enduring under the stress and how much her family needed her and missed her. I responded, "Ma'am, inventory is not a hill worth dying on. When you apply this approach, you can spend time with your family and God and take some time to rest." She and my translator started to cry. Even I started to tear up. There is a way through these issues that does not require the $7 \times 24 \times 365$ strain under which so many supply chain professionals work. This book is my best attempt to show a less stressful and more peaceful way through the myriad and mazelike issues inherent in inventory and supply chain strategy.

Over the last 20+ years the RightStock approach to inventory strategy has been applied in nearly every industry in nearly every part of the world. I have taught it to thousands of professionals in many different languages. So far it has been responsible for more than \$1 billion in profit improvements and a lot more personal and professional peace. The approach uses data, analytics, and a proven methodology to maximize the financial, service, and operational performance of inventory. In sharing it here I will use the best mix of examples, analogies, and analytics that I can put together to present the RightStock principles, methodology, and tools.

Thank you for taking the time and energy to read *Inventory Strategy*. I would appreciate any and all constructive feedback.

I can be reached via e-mail at EdFrazelle@LRIConsulting.com.

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As you will be able to tell from the book, I definitely have a nerd side. That side has been developed through longstanding relationships with two of the world's top academic institutions: Georgia Tech and Waseda University. I do not have words to express my appreciation for the opportunities they have afforded me.

We all need mentors and coaches. My professional mentors and coaches are the best I have ever known. Dr. John White, Mr. Jun Suzuki, Dr. John Jarvis, and Dr. Teruo Takahashi took me under their wings and served as inspiring role models.

In LRI's supply chain strategy consulting and training, we are exceedingly blessed to work alongside some of the world's most outstanding individuals. They have encouraged me professionally and personally and have helped us develop and share our RightChain™ principles, processes, and tools. I am very grateful for the privilege they have provided us to consider their supply chain and inventory issues. There are too many folks to name here, but I do want to highlight a few special ones:

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