SUCCESSFUL Service Operations Management

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Preface

The academic field of operations management has often been called *production management* or *production and operations management* because of its close ties to manufacturing management. Now, however, roughly 80% of the U.S. economy falls within the "services" domain, giving a new perspective to *operations management*. The future careers of business school students tend to be even more extreme in their tilt toward services. Further, even traditional manufacturers such as Ford and General Electric now derive large portions of their revenue from their service businesses, rather than from their physical products.

The challenge before the operations management community is to keep our field growing and relevant by embracing the service economy. This book is written in response to that challenge.

Many traditional operations management tools and techniques presented by textbooks with manufacturing examples are also valuable in services firms, such as project management, process analysis, or inventory management. However, even with these traditional tools, the context and emphasis of their application in a service business often differs radically from a manufacturer. Consequently, this book contains many topics found in general operations management texts, but discusses those topics exclusively from the viewpoint of a service sector manager.

Other tools and concepts, such as yield management, data envelopment analysis, experience management, and scoring systems, are used nearly exclusively in services. Not only are these topics not found in traditional operations textbooks, but the major case study writing institutions also ignore them, leading to a general dearth of teaching material for these topics. Here, we not only include explanatory material for these topics, but also provide original case studies to offer the decision-oriented learning environment favored by many students.

The book is organized around both qualitative and quantitative themes, starting from a "top down" look at operations. The first half of the book is largely qualitative and presents conceptual frameworks to guide strategic operational decisions. The second half of the book is largely quantitative and focuses on using techniques to achieve the goals set forth in the strategically oriented material.

This book contains the following features:

Learning objectives precede every chapter to keep students focused on key concepts.

Ten original case studies are included. Four of these case studies are class-length cases that have been classroom tested in several business schools. Collectively, the class-length cases in Chapters 9, 14, 15, and 16 have been used in at least 20 business schools, including Stanford, University of Calgary, University of Pennsylvania, University of Southern California, INSEAD, Oregon State University, and many others. Four of the shorter case studies have also been extensively classroom tested in several business schools.

Classroom tested quantitative chapters. Many faculty are surprised that such difficult quantitative topics as Data Envelopment Analysis, scoring systems, and yield management can be taught to non-Ph.D. candidates. Even though this book is a first edition, the quantitatively oriented chapters have been classroom tested in a course that received high student ratings.

Boxed features throughout the text, *Service Operations Management Practices*, provide practical contexts for theoretical points.

The *Student CD-ROM* contains the data and calculations for the examples in the text, as well as data for the case studies.

The *Instructor's Resource CD* (ISBN 0-324-13559-9) includes answers to chapter-end problems, discussion of cases, and PowerPoint® presentations.

Special thanks go to Michael Ketzenberg, Colorado State University, for writing the chapter on project management, and Steve Walton, Emory University, for writing the chapter on environmental strategies. Sherry Oh, University of Calgary, and Vicente Vargas, University of San Diego, also provided valuable additions to this work.

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He has published more than 20 articles in journals such as *Journal of Operations Management*, *Management Science*, and *Harvard Business Review*, and is on the editorial board of *Journal of Operations Management*, *Production and Operations Management*, and *Journal of Service Research*.

Kathryn King-Metters

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In addition to holding a variety of marketing, sales, forecasting, and customer service management positions at IBM, SAS Institute, and Berol Corporation, she founded and managed her own management consulting company for five years in Raleigh, NC. Since that time she has consulted with Arthur Andersen, Scott, Madden & Associates, and J. D. Power & Associates. Her particular consulting interests are services operations, strategic analysis, strategic and operational planning, and customer service satisfaction.

Madeleine Pullman

is an Assistant Professor at the College of Business at Colorado State University. She has also taught at London Business School and Southern Methodist University. She has a Ph.D. in business, M.B.A., and an M.S. in Mechanical Engineering from the University of Utah, and a B.S. in Energy Systems from Evergreen State College.

She has published case studies and articles in *Journal of Operations Management*, *Decision Sciences*, *Production and Operations Management*, *International Journal of Service Industry Management*, and many other journals. Her interests in service operations include teaching a course in the entertainment industry, as well as traditional service operations courses.

Brief Contents

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CHAPTER 1

Introduction: Services in the Economy

Learning Objectives

The material in this chapter prepares students to:

- Understand how and why services dominate the U.S. economy.
- Define "operations."
- Delineate the differences between goods and services.
- Categorize services according to the "customer contact model" and the "service process matrix" and understand the managerial ramifications of those conceptual models.

Why study service operations?

Several reasons make services, and the *operations* of services in particular, worthy of study:

- Service firms constitute an overwhelmingly large percentage of the economy of every industrialized nation, the size will only increase, and it is by far the most likely economic sector in which business school graduates will be employed.
- Despite the size of the service economy, academic research has largely ignored services. The relative lack of attention given to services provides a competitive edge to those students who pursue its study.
- Many services have characteristics that are strongly different from goods. Consequently, specialized and different managerial techniques are employed in services than are employed in many manufacturing firms, and knowledge and experience gained from studying manufacturing settings does not always transfer to services.

This chapter sets the stage for the study of service operations. Here, we will discuss the what, why, and how of service operations: What services are, why service operations should be studied, and two different views of how to look at service firms in frameworks that can help in organizing thought.