

Revenue Management and Pricing:  
Case Studies and Applications



REVENUE MANAGEMENT  
AND PRICING:  
Case Studies and Applications

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*Edited by*

IAN YEOMAN AND  
UNA McMAHON-BEATTIE

**THOMSON**  
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**Revenue management and pricing: Case studies and applications**

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To Dad  
*Ian Yeoman*

To my mother, Ellen  
*Una McMahon-Beattie*



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# Contents

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EDITORS AND CONTRIBUTORS	ix
FOREWORD <i>E. J. Krieken</i>	xiii
INTRODUCTION: USING THE BOOK	xv
CASES	
1 Revenue Management Basics in the Charter Boat Industry <i>Raul Bermudez, Tamara Dieck and Warren Lieberman</i>	1
2 easyJet: An Airline that Changed our Flying Habits <i>Gerald Barlow</i>	9
3 The Wedding Bell Blues <i>Sheryl E. Kimes</i>	24
4 The Right Price Consultants <i>Julie Swann</i>	32
5 Revenue Management in Restaurants: A Case Example from Bornholm, Denmark <i>Nick Johns and Charlotte Rassing</i>	46
6 Dynamic Pricing of Distillate Products at Petroleum Terminals <i>Douglas Harvey, Nicola Secomandi, and Theodore V. Valkov</i>	58
7 Free Nelson Mandela? The Politics and Pricing of Culture Within Society <i>Elizabeth Carnegie</i>	71
8 Sex and Saunas <i>Ian Yeoman, Catherine Drudy, Ruth Robertson and Una McMahon-Beattie</i>	79
	vii

9	Hotel Demand/Cancellation Analysis and Estimation of Unconstrained Demand Using Statistical Methods <i>Patrick H. Liu</i>	91
10	Bolton Wanderers: A Case of Good Practice in the Football Industry? <i>Gerald Barlow</i>	109
11	Unconstraining Demand Data at US Airways <i>Richard H. Zeni and Kenneth D. Lawrence</i>	124
12	Revenue Management in the Health Care Industry <i>Warren Lieberman</i>	137
13	Revenue Management in Visitor Attractions: A Case Study of the EcoTech Centre, Swaffham, Norfolk <i>Julian Hoseason</i>	143
14	To Trust or Not to Trust: Variable Pricing and the Customer <i>Una McMahon-Beattie, Adrian Palmer and Ian Yeoman</i>	157
15	Cases in Legal Aspects <i>Michael Boella and Thriné Hely</i>	166
16	Understanding the Bid Price Approach to Revenue Management: A Case of the Revenue Inn <i>Deitrich Chen and Michael Freimer</i>	174
	SUGGESTED SOLUTIONS	184
	ENDNOTE <i>Montgomery Blair</i>	215



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## Foreword

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Companies that are better at fulfilling customer needs make better returns. In the current state of the world economy and cut-throat competition, the essence for survival is to create more customer value as perceived by your customers relative to your competitors. Low inflation and global competition are fierce barriers to price increases. Many companies have already jumped through hoops to cut costs and productivity. So now they need to create new products, additional value and other ways to generate more revenues from their customers.

Apart from world-class product development, pricing and revenue management are key to success. Pricing is vital in attracting and capturing demand. Pricing is also fundamental in optimizing your product's true worth out there in the real market-place, while revenue management is managing and controlling displacements (do not sell now, if you can get more later or vice versa). Pricing is more concerned with dilution. Without having the right segmentation and distribution and terms and conditions in place, a customer could be willing to pay more but you yourself could unintentionally be offering the same product at a lower price, basically destroying value.

In the age of internet transparency, sometimes distressed inventories and, for example, low-cost product offerings, the balancing act of managing customer value, pricing and revenue management practices should be managed as a whole and not as independent entities.

This new book delivers a wealth of new cases, best practices and a broad range of experiences covering many industries and service sectors. It also complements Una and Ian's other book *Yield Management: Strategies for the Services Industries*, as it shows how revenue management really works in practice. The book is both aimed at practitioners and MBA students mastering the growing profession of pricing and revenue management worldwide. It covers a wide diversity of case studies and applications.

Within KLM, pricing, revenue management and forecasting are considered core competencies. We invest heavily in systems as well as in the 'intellectual human capital' of our staff, in order to stay ahead of competition. It is strategic to continuously invest in these areas, and it pays off well.

I am sure that this state-of-the-art book will contribute further to the effective application and growing understanding of revenue management and pricing tactics and strategies.

E.J. Kreiken  
KLM Royal Dutch Airlines  
Senior Vice President Pricing & Revenue Management

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## Introduction: Using the Book

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*Revenue Management and Pricing* is an extension of our previous book *Yield Management: Strategies for the Service Industries*. This first book provided readers with the necessary underpinning theory, knowledge and application of yield management. This new, case study book, treats revenue management and pricing as a practical subject that is more than a management science algorithm. It is certainly an area that deserves wider reading and dissemination. One of the best ways to learn is to benchmark best practice through telling a story of 'how in fact, revenue management is practised': hence the purpose of this book. Opening this case book will help the reader gain an insight into revenue management and pricing. It will allow the practitioner and student to develop a useful understanding of the complexities of this often misunderstood scientific subject. More importantly, the book will give you the opportunity to know how Revenue Managers work, how they face the issues and how they work with problems. The book is an opportunity for readers to assess, experiment and learn from leading academics, researchers and practitioners. Essentially, the book will allow you to:

- Search for best practice examples of revenue management and pricing.
- Give you a chance to evaluate real situations faced by Revenue Managers.
- Gain useful insight into Revenue Managers' thinking.
- Assess a problem, without the pressures of operational time.
- Reflect upon suggested solutions from the case studies.
- Debate, discuss and interpret revenue management scenarios, that could improve your business performance.
- Understand revenue management and pricing in a wider context of business.

All the cases in this book are designed to provoke debate and thinking within the realms of revenue and pricing decisions. The cases have been selected in order that the practitioner can understand a specific application in different industries or evoke issues and implications. Its purpose is to promote discussion as how the Revenue Managers might improve the business and contribute to organizational objectives, through a range of

skills and techniques needed to understand and practise revenue management and pricing. Analysis of the cases allows you the opportunity to apply and test out many of the ideas and examples of best practice from industry and academia.

The book asks you a number of things: either to understand a situation and its implications or provide a solution to a specific problem. Reading the case studies is the equivalent of observing the practices of revenue management and pricing, in order to understand the context of the situation. You will be able to:

- Draw upon the facts, whether hard or soft, in order to form a precise account of the problem situation.
- Infer facts, in order that a problem can be reconstructed in such a manner that draws logic to a chaotic or unstructured account.
- Find out what the purpose of the case study is all about, which will allow you to conclude possible aims and objectives of the case study.

Many of the cases are subjective, and they include hearsay statements or opinions which are not factual. But they are a reliable source of information that can shape debate in order to understand the practices of revenue management and pricing. Also, the nature of case studies is often based upon assumptions that require an interpretation and subjectivity when analysing the cases.

The next stage involves analysing the situation in order to determine the elements of the case studies. It is a process of breaking down the issues and bringing to the surface assumptions that determine the component parts of the case studies. A good idea is for the reader to use mind maps in order to map out the most important issues and related components. This will help you summarize your findings in a graphic format, which assists thinking and makes it easier. Many students use cause and effect diagrams as a means to identify root causes and show logical connections in the case studies. This simple process of identification forms the basis of an analysis of the case studies, in which solutions or options can be developed.

Having spent time analysing a case study, the reader needs to move forward to identify possible options in order to take a course of action. Readers will find a range of questions in each case study, which will have multiple answers. The purpose of the questions is to shape debate rather than provide a final solution. As revenue management and pricing solutions are never a final answer but rather a purposeful answer, the searching of solutions involves the reader in developing and evaluating options. The process of evaluation means determining the value or worth of solutions, through using criteria such as feasibility, acceptance and risk. But once this decision is taken, the reader then turns to the issues of implementation. Implementation is concerned with questions of when, speed, cost, times and order that leads to the implementation of revenue management and pricing decisions.

Therefore, the aim of this book is to provide readers with a practical insight into the workings of revenue management and pricing which will cross the diversity of industries and provide meaningful knowledge of application. So enjoy your journey of discovery and learning.

Ian Yeoman and Una McMahon-Beattie



# 1

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## Revenue Management Basics in the Charter Boat Industry

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**Raul Bermudez, Tamara Dieck and Warren Lieberman**

### INTRODUCTION

Picture yourself on a 45 foot yacht exploring the tropical islands and warm waters of the Caribbean as you enjoy a first-class sailing vacation. With a product like that to offer, what could a boat charter company want with revenue management? The Moorings is well known for its quality boat charters, enjoying excellent customer satisfaction and strong product demand, especially from repeat customers. But, having heard about the revenue management benefits other industries were claiming, its senior management wondered if revenue management could benefit the company.

Although many travel-related companies, including cruise lines, car rental companies, hotels, tour operators and even some golf resorts use revenue management, its principles had not been applied to the boat charter industry. The question in this case is to consider how The Moorings could make use of revenue management tools and principles to enjoy even more success. Boat charter companies do have similar issues with industries that employ revenue management techniques. For example, they have perishable products, seasonal demand and price competition. But they also have customer service and operational needs that are significantly different than do firms in these other industries. This case focuses on key revenue management principles that helped The Moorings improve on its success.

### AIMS AND OBJECTIVES

At the core of revenue management is the maximization of profits from the sale of perishable assets by controlling price and inventory. Revenue management in the airline

industry has its roots in availability controls of different fares. For the hotel industry, the greatest benefits often arise from controlling availability by length of stay. And in the cruise line and car rental industries, revenue management typically involves offering the right price and promotions. Although the same principles of revenue management might apply to each of these industries, the applications of revenue management techniques differ.

In essence, The Moorings has a unique opportunity to define what revenue management should mean for its industry. The objective of this case is to think about what techniques and decision support capabilities can be used by The Moorings to better control its inventory and prices.

## **BACKGROUND**

The Moorings offers both bareboat (i.e., self-skippered) and crewed (professional captain and cook are provided) yacht vacations on monohulls and catamarans that can accommodate from two to ten persons. You can sail away to exotic waters in the South Pacific, Caribbean, Mediterranean, or North America. They have 24 bases to sail from including Tortola, St Lucia, Grenada, St Martin, Tahiti, Tonga, Palma, Nice, Athens, Bahamas and Baja.

### **Boat Types**

Each base has from eight to 30 different boat types and from one to 40 boats in a given boat type. The larger bases have more than 150 boats and smaller bases may have only a dozen boats. Boats are mainly classified based on overall length and passenger capacity.

In addition, the fleet is segmented into two lines, generally according to age. Both lines comprise monohulls and catamarans and include such amenities as linens, towels, dishes, pots and pans, and housekeeping supplies. The Exclusive Line yachts are brand new yachts that spend approximately two years in charter before moving into the Club Line, where they are available from their second through fifth anniversaries. The Exclusive Line yachts generally produce higher prices than the Club Line yachts.

### **Vacations**

Vacations are typically booked for one or two week durations. For sailors, it is a great way to experience sailing waters far from home. For those new to sailing, a crewed charter can be the ultimate luxury, with a captain who will sail you where you want to go and a cook to delight your taste buds.

### **Services**

The company is well known for its outstanding service and personal attention. Prior to each charter, the yachts are given a comprehensive review that takes approximately eight hours. In addition, yachts are subject to a set of scheduled preventative main-

tenance procedures. In the unlikely event of mechanical difficulties while on charter, The Moorings will get to the yacht with the parts necessary to fix the problem.

In addition to the boat charter, The Moorings offers trip cancellation insurance, hotel and air bookings (often discounted from publicly available fares), provisions and special services. Provisioning plans for bareboat charters range from a Charter-Starter Kit with the basic supplies and staples (napkins, garbage bags, coffee, salt and pepper, etc.) to a Split Provisioning Plan that includes the Starter Kit, breakfasts, lunches, dinners, and snacks. Other offerings include the rentals of kayaks and windsurfers and the services of a skipper or cook.

### **Yacht Ownership and Management**

The company offers a yacht ownership and management programme. Most private yacht owners sail an average of 25 to 30 days a year while having to pay the year-round costs of maintenance, insurance and dockage. With The Moorings ownership programme, however, you own the yacht and earn a charter income stream, while receiving up to six weeks of sailing time. Owners may also vacation aboard other Moorings yachts at bases around the world. The Moorings charters and maintains the yacht and pays all operating expenses. The Moorings can make owning a boat within the financial reach of more people, while still allowing boat owners to sail.

In order to keep the wear and tear equal across a given type of yacht at a base, the company seeks to balance the usage of each boat. Boat owners receive an income stream based on the revenue received by The Moorings for chartering their specific boat. Because the owners receive an income stream based on the boat's charters, The Moorings aims to equalize the revenue produced by each boat.

The Moorings also offers flotillas, regattas and group events. Learn-to-sail and live-aboard cruising courses prepare sailors with some experience for taking the next step to bareboat cruises.

### **Booking Charters**

Charters are booked with The Moorings' charter agents. While these staff members provide a service similar to that provided by reservation agents at many travel companies, many of these reservations agents are experienced sailors themselves. Consequently, they often provide useful product and regional information to the customers. The largest percentage of clients book directly with charter agents in response to sailing and luxury magazine advertisements. Many bookings come from repeat clients. Indirect bookings are also received from brokers that specialize in yacht charter vacations and from travel agents who primarily bring the product to the non-sailors of the world. More and more interest is also being generated over the Internet.

Pricing of boat charters is fairly simple. The year is split into four seasons with different prices by base, season and yacht type. Sample rates for two bases in the Caribbean, St Lucia and Grenada, are shown in Table 1.1.

**Table 1.1** Sample charter rates for St Lucia and Grenada (Daily Yacht Rates, US\$)

	Season A Dec 18–Jan 3 Jan 30–Apr 11	Season B Jan 4–Jan 29 Apr 12–May 2	Season C May 3–July 11 Oct 30–Dec 17	Season D Jul 12–Oct 29
Exclusive Line – Newest Model Yachts				
Moorings 362	530	430	350	280
Moorings 413	640	530	430	350
Moorings 505	970	800	680	530
Moorings 3800 Catamaran	825	700	600	485
Club Line				
Moorings 405	525	435	375	305
Moorings 505/503	880	740	640	495
Moorings 3700 Catamaran	720	590	520	420

### Rates

The Moorings develops and publishes its rates once a year. This is the industry standard for pricing. These rates are effective until the next year's rates are established. The rate sheets claim that all prices are subject to change without notice. Despite this disclaimer, changing rates is labour intensive and is rarely done. The effective rate sheets are good for charters being booked up to five years in the future.

### Discounting

Price competition has been fierce among the largest charter vacation providers and has led to frequent discounting. The Moorings is worried that this hurts their leadership position in the market. They do not want to be known as the discounting brand, but as the sailing vacation industry leader that provides first-class sailing vacations. Relative to other firms that charter yachts, The Moorings is known throughout the industry as providing a higher level of service.

Available discounts include 10 per cent-off coupons distributed at boat shows, Holiday Escape special rates for 30 November to 17 December, three days free when you buy ten days in the Caribbean, and two days free when you buy five in the Bahamas. Special deals to generate demand are also sent in direct mailings to previous clients.

There has been a shift recently to put less emphasis on discounts. Where charter agents used to offer some form of discount to many prospective clients, revenue management controls now limit the use of discounts. Where before there were pages of approximately 40 available discounts, there is now one page of approximately ten valid discounts that the charter agent may utilize.

The difficulty for revenue management is in knowing when and where discounts are needed to stimulate demand. The Moorings does not have formal demand forecasts. A typical booking curve is shown in Figure 1.1, but the booking curve does vary by base, charter month and yacht type.

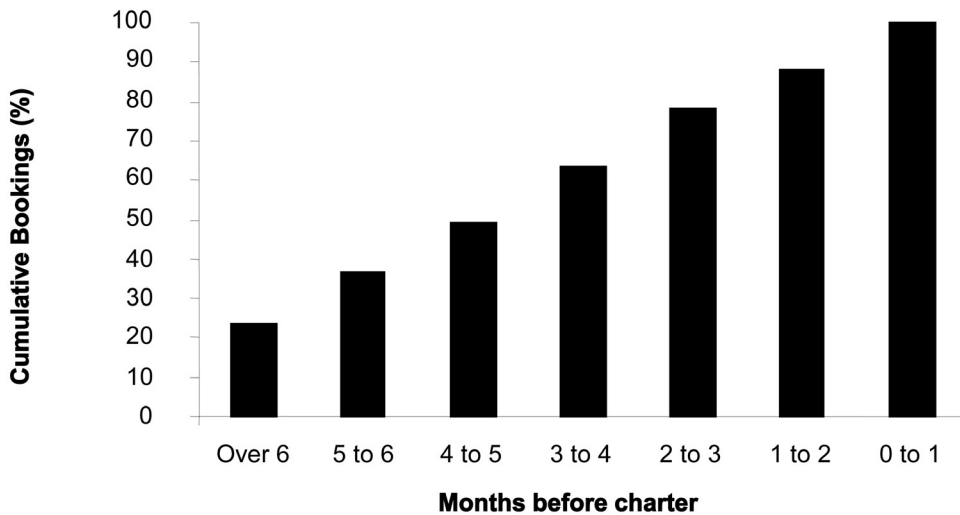


Figure 1.1 Sample charter booking curve

### Demand and Boat Utilization

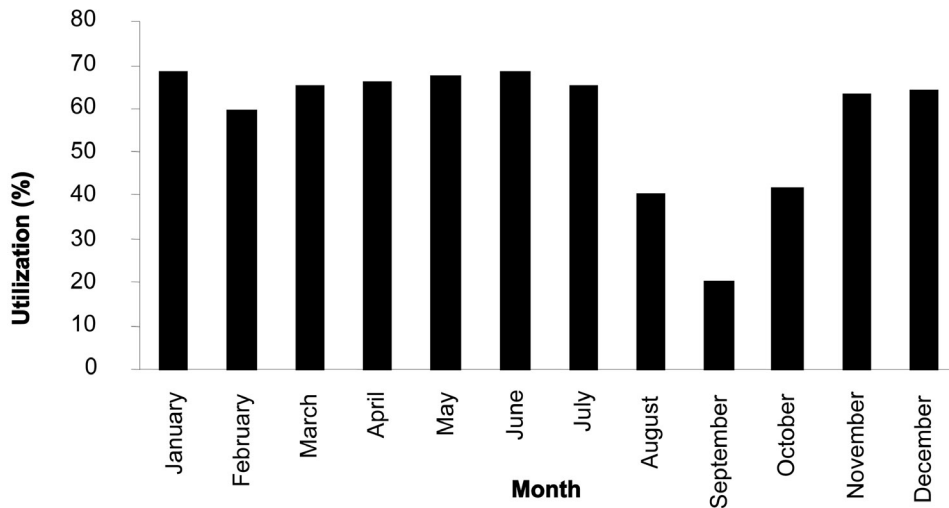
Demand for the newest yacht or catamaran is always strong. Also, certain bases and seasons typically enjoy demand that is greater than capacity. For example, the President’s Day holiday in February is a popular travel week for American customers. However, there are certain base, boat and season combinations where The Moorings wants to stimulate additional demand.

While profits have been increasing steadily the past few years, boat utilization levels have been less than the company’s goals. During the past few years, monthly utilization levels have never been greater than 70 per cent. Figure 1.2 depicts typical monthly utilization levels in the Caribbean.

As illustrated by Figure 1.2, The Moorings experiences a seasonal drop in utilization levels from August through October. This has been attributed to the less desirable weather in the Caribbean during this time period. August through October corresponds to the middle of hurricane season, with September weather being the most problematic. Utilization levels greater than 90 per cent are generally not achievable because of the time needed to clean and turn boats around in-between charters; senior management has noted that this still leaves a 20 per cent gap for improvement.

The Moorings has noticed dips in utilization at shoulder seasons (i.e., just before the start of a lower-rate season). Customers seemingly wait for the price break to book their charters, although charter rates are prorated. So, customers booking a seven-day charter, that has two days in Season B and the remaining five days in Season C, only pay the higher Season B rate for those first two days.

Customers are assigned to a specific boat at the time of booking, although this information is not conveyed to the customer. For example, when a customer calls and requests a Moorings 413 (a three-cabin, six to eight passenger monohull) for 14–21 March in Tortola the charter agent checks the availability of each boat. An availability screen provides the information shown in Table 1.2. Each letter represents a different contract for a boat charter. Boat and date combinations that do not contain a letter are dates on which that boat is available for charter.



**Figure 1.2** Monthly boat utilization

The screen shows, for each date, the contracts assigned to each boat. For example, Boat 413-1 has two contracts assigned to it: Contract 'a' from the 11th to the 17th and Contract 'b' from the 19th to the 24th. The agent must search the list of boats on the screen to determine if there is a boat available for the requested dates; if none are available, the agent should then determine whether the current contracts could be moved so as to create an available boat. As you might imagine, contracts cannot be split between boats.

**Table 1.2** Current March bookings for Moorings 413 in Tortola

Boat	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th
413-1	a	a	a	a	a	a	a		b	b	b	b	b	b
413-2		c	c	c	c	c	c	c			d	d	d	d
413-3			e	e	e	e	e	e	e	e			f	f
413-4	g	g	g	g				h	h	h	h	h	h	h
413-5		i	i	i	i	i	i	i	i		j	j	j	j
413-6	k	k	l	l	l	l	l	l	l	l				
413-7						m	m	m	m	m	m	m	m	
413-8		n	n	n	n	n	n	n	n	n	n	n	n	
413-9	o	o	o	o			p	p	p	p	p	p	p	

In this example we have nine boats and there is a way to reassign the contracts to boats so that the request received for chartering a boat from 14-21 March can be accepted. Whether or not this actually occurs, however, depends on how long it takes to do so and whether the agent who is handling the call is willing to take the time to do so (and, can figure out how to do so). When a boat class only has two or three boats the problem is not too difficult, but for boat classes with nine boats and certainly if there are 20 or 30 boats, the problem quickly becomes complex. The Moorings is convinced there must be a better way to manage their inventory, but no one has yet figured out a practical way to do so.

While the majority of bareboat charters begin and end at the same base, approximately 5 per cent of these charters end at a different base from where the charter began. At some bases, this can be as high as 20 per cent. One route that has a high percentage of these 'one-way' charters is in the Caribbean, between St Lucia and Grenada. Due to wind and current directions, customer demand is heaviest in the route going north to south. Customers start their sailing trip in St Lucia and end in Grenada. Sailing in this direction is much easier than sailing in the reverse direction. Consequently, excess inventory can end up in Grenada. Indeed, because customers are given the option of returning to the same base or sailing to a different base at the time of booking, all of the St Lucia fleet would ultimately end up in Grenada if the one-way boats were not brought back to St Lucia. To alleviate the over-fleeting issue, the company hires individuals to sail its yachts back to St Lucia. The trip from Grenada to St Lucia usually takes two days. Although customers are charged a drop-off fee for the redelivery, the fee does not cover all the incremental costs incurred by The Moorings to reposition the yacht.

The Moorings staff has considered increasing the repositioning fee that is paid by customers. But, they do not believe that customers will be willing to pay the full charge, so the company has accepted this incremental expense as a 'cost of doing business'.

The time required to deliver boats back to St Lucia reduces the time that a boat can be generating revenue for The Moorings. The amount of time spent in shuttling boats back to St Lucia can be quite significant. For example, if a yacht is rented for fifteen one-way trips during the year, this results in 30 days in which the boat cannot be rented. In this case, the maximum possible utilization for a boat would be just under 92 per cent. Because an additional day has to be spent cleaning and maintaining a boat after each rental, the maximum time a boat can be rented decreases even more.

In addition, it is a manual process to track the boat movements from base to base. Each boat has a home base in the system, and only one home base. If a boat has its home base in St Lucia, but has just arrived in Grenada at the end of a one-way charter, the reservation system still shows the boat to be at its home base. The agents do not see where a boat is physically located; they only see the home base. When the boat is being redelivered back to St Lucia, the redelivery time looks like charter utilization because the system does not allow for the tracking of delivery time. The delivery days are added to the customer contract and discounted out. Not only does this procedure confuse the customer, it overstates utilization and discount percentages. This manual procedure of accounting for delivery days makes it difficult for agents to select and assign a St Lucia home base boat to a customer who wants to reserve a boat in Grenada for a Grenada to St Lucia one-way.

The pricing and inventory management for one-way transactions between the islands of St Lucia and Grenada can be summarized as follows:

- The same price is charged for a one-way charter from either base (as shown earlier in Table 1.1).
- An additional drop-off fee is charged to redeliver the boat to its starting base.
- One-way transaction flow is approximately 90 per cent from St Lucia to Grenada.
- Yachts are automatically redelivered back to their starting base.
- Reservation agents manually assign specific yachts to reservations.

The company is considering making some changes to improve the profitability and boat utilization for St Lucia and Grenada charters.

The Moorings is already moving forward on its revenue management path. Some

progress has been made, as evidenced by the reduced number of discounts that charter agents can offer. As part of its efforts, The Moorings has engaged a revenue management firm to provide a strategic plan to enhance revenue management capabilities.

### **DISCUSSION QUESTIONS**

1. How could The Moorings provide a more flexible charter to boat assignment (rather than assigning charters to boats as requests come in)? Try to find the best matching of charter contracts to boats for a given base and boat type. The best matching comes closest to equalizing revenue across boats.
2. Develop a pricing strategy to improve the utilization of boats in St Lucia and Grenada.
3. What recommendations would you give The Moorings to improve its pricing?