Debunking the Myths of
Yield Management

A look at ten popular misunderstandings about yield management's role in and effect on the lodging industry

By Warren H. Lieberman

YIELD MANAGEMENT has become an accepted part of the hotelier's lexicon. Yet if you ask ten hoteliers what it is, you are apt to get at least five, and possibly ten, different answers. On the other hand, ask ten airline executives what it is, and you will probably encounter far greater agreement.

The reason for such disagreement among hoteliers, I believe, is that the underlying concepts of yield management have not been well communicated to them. Yield management in the airline industry is *not* the same as yield management in the hotel industry. The root concepts are the same, but the applications and the techniques used to implement the concepts differ widely. Unfortunately, yield management is often discussed in the context of the applications and techniques, not the root concepts.

The understanding of yield management in the airline industry has grown out of experience. Airline executives have a commonality of experience that has resulted in a more consistent view of yield management. Although airline executives may not understand the root concepts any better than hoteliers, they have experienced its applications more consistently.

This article seeks to provide hoteliers with a common understanding of yield management by debunking ten of the myths that surround it and thereby shedding some light on a confusing subject.

Yield Management Defined

Before debunking each of the myths, however, let's take a look at yield management, or revenue management, as it is sometimes called. Yield management is the practice of maximizing profits from the sale of perishable assets, such as hotel rooms, by controlling price and inventory and improving service. If that sounds like what hoteliers have always done, it should. Yield management does not try to accomplish anything different from what hoteliers have always tried to do: supply a quality product and be as profitable as possible in the long term.

What yield management offers that is different is a systematic approach to reaching that objective. Through that systemization, hotels discover that they can deliver their product differently, and more profitably. In the hotel industry yield management may be described this way:

> Using information, historical and current, in combination with policy supports, procedural supports, and statistical models, to enhance a hotel's ability to carry out a number of common business practices and thereby increase both its revenues and its customer-service capabilities.

Such business practices include:

- Setting the most effective pricing structure;
- Limiting the number of reservations accepted for any given night or room type, based on the expected incremental profitability of a reservation;
- Reviewing reservation activity to determine whether any inventory-control actions should be taken (e.g., controlling the availability of discounted rates);
- Negotiating volume discounts with wholesalers and groups;
- Providing customers with the "right" product (e.g., room type, rate);
- Obtaining more revenues from current and potential business; and
- Enabling reservations agents to be effective sales agents rather than merely order takers.

Yield management uses information about customer purchasing behavior and product sales to develop pricing and inventory controls that produce greater revenues and deliver products that are better matched to the customers' needs. It is a melding of information-systems technology, probability, statistics, organizational theory, and business experience and knowledge. As hotels become more experienced in yield management, additional opportunities will inevitably develop.

Myth 1: YM Is a Computer System

When a hotelier is approached by a "yield-management specialist," it is usually a short time before the wonders and value of computer tools and systems are discussed. Discussions of yield management appear to be inextricably linked to computer systems and their capabilities of forecasting demand, optimizing reservation-inventory allocations, and limiting discount availability.

Yield management is neither a computer system nor a set of mathematical techniques. It is an approach to increasing revenues and improving service by responding to current demand. It is a process, a way of conducting business. Certainly, computer-based tools can be a key component of a yield-management program. The full range of the benefits of yield management will not be achieved without computer-based tools that do the following: forecast demand, cancellation, and no-show activity; determine when to restrict the sale of discounts; estimate the revenue displacement of transient demand caused by a group; recommend and control reservation availability on the basis of length of stay and daily rate; and perform many other actions that could not otherwise be effectively carried out.

But other yield-management practices can be implemented with little or no investment in computer resources. Upselling programs, enhanced scripting for reservations agents that enables them to be more-effective sales agents, revised performance measures, and marketing programs and packages that produce incremental revenue gains are a few of those actions. Some hotels can carry out those business processes better than others because of the way they monitor employee actions and customer purchasing behavior and identify and communicate the actions of hotel staff members.

EXHIBIT 1
Ten yield-management myths

MYTH 1:	YM Is a Computer System
MYTH 2:	YM Takes Control Away from Employees
MYTH 3:	YM Works Only When Demand Exceeds Supply
MYTH 4:	YM Is Price Discounting
MYTH 5:	Yield Management Is Incompatible with Good Customer Service
MYTH 6:	YM Is Too Complex
MYTH 7:	YM Doesn't Address "My" Problems
MYTH 8:	YM Programs Automatically Increase Revenues
MYTH 9:	Hotels Using YM Don't Need to Change a Thing
MYTH 10:	Hotels Can't Use YM if Competitors Don't

Although yield-management decision making may be supported by sophisticated mathematical modeling, yield-management programs also involve other elements, for example:

- Education and training,
- An appropriately designed and delivered product, and
- Corporate policies and procedures that encourage revenue enhancement.

Those three areas must be addressed in a coordinated manner when developing or enhancing a yield-management program. Focusing too heavily on any one of them will lead to an unbalanced program that will not produce anticipated benefits. Employees must be able to learn from their decisions—information-feedback mechanisms are critical. As a yield-management program becomes more sophisticated, so too will the feedback mechanisms.

Product. One concept of yield management that has proved successful focuses on offering a product at multiple prices, differentiating the price by some service or purchase characteristic at each price point. Many hotels have had trouble implementing yield management because they have failed to modify their product appropriately. The customer wants each product to have only one price. When you go into a store, a product sells for a single price. You either buy it or you don't. (It is interesting to note that many car dealers in the United States are finding that customer satisfaction is increasing as they move toward selling new cars by promoting prices that are nonnegotiable. Several hotel chains are now beginning to follow suit.)

On the other hand, when you call some hotels and are quoted a price, if it is too high, you will be quoted additional lower prices—often for the same room and without any service variations. Why? If a hotel offers multiple prices for the same room, the rates need to be differentiated. Effective market segmentation is critical. These questions need to be answered: What types of customers will purchase the product? What value do they place on it? How do the purchase needs and behaviors of the market segments differ?

Airlines have differentiated their product on the basis of purchase and service restrictions such as refundability, advance-purchase requirements, and Saturday-night-stay requirements. Hotels that offer multiple prices for a room must do the same. The particular service characteristics may differ from the airline approach, or even among hotel chains. But consumers must understand why the same room can cost either $69 or $169.

Policies and procedures. Corporate policies and procedures should be designed to encourage revenue enhancement. One firm had a performance-measurement system with multiple monthly goals. As the end of the month approached, employees' behavior would often change to reflect their progress toward achieving each of the goals. The end-of-the-month behavior, while maximizing an employee's compensation, did not maximize the firm's revenue. Changes in the performance measures have helped reduce the problem.

Senior managers at another firm were acutely aware that accepting reservations beyond capacity resulted in unaccommodated customers. But they did not know how much additional revenue was generated by overbooking. Personnel in the yield-management department received several directives to reduce over-booking levels. During a review of the company's yield-management practices, departmental procedures to constrain the overbooking levels were identified, and their implications were discussed with senior management. The revenue implications of the constraining procedures were estimated. When senior management learned how much revenue loss was associated with its directives, changes were instituted, overbooking levels were pushed to a higher level, and revenues increased.[1]

Technical models. Using the right technical models is critical in identifying the right actions to take. A hotel-casino stopped using available yield-management computer software because management believed that the software was making incorrect recommendations. The management was correct: the software did not consider the value of gaming revenue when making recommendations about room-rate availability. The software was useful to the free-standing hotels in the hotel chain, but not to hotels with casinos. The management of the hotel-casino was right to stop using the software, but it was mistaken in its belief that yield-management concepts did not apply to its business.

Because yield management is a business process, it would be unwise to say that the tail (yield management) should wag the entire dog (the hotel). One hotel chain reportedly spent more than a million dollars on yield-management software. During its implementation, however, the hotel company's managers realized that the software did not meet the operating needs of many of the chain's hotels. The chain is currently working to replace the software with a yield-management program that better meets the actual needs of its hotels. Hoteliers are well advised to think and plan ahead before selecting yield-management software.

Myth 2: YM Takes Control Away from Employees

In discussing yield management, a cruise-line executive stated, "We don't have any computer modeling. We basically set prices on a seasonal basis and we're just monitoring the load factors from

[1] The risk, of course, is the potential for diminished customer service. It is not necessarily true, however, that more overbooking will lead to poorer customer service, as explained under myth number five.

that point on. It's basically hands-on. There's a texture to this a computer can't replicate."[2]

But the executive's criticisms do not accurately reflect what occurs in a correct implementation of yield management. Simply put, yield-management tools do not replace employee decision making and control. Yield-management programs offer information to a firm's staff members so that they can make better decisions. Yield-management tools may accomplish some routine actions previously performed by employees, but yield-management tools do not take over a staff member's decision-making functions or responsibilities. A more sophisticated yield-management program will contain tools that recommend specific courses of action. For example, yield-management tools might suggest that no more reservations be accepted for a specific discount rate for a particular night, or that a group rate of $75 is too low for a certain set of nights. But the ultimate decision and responsibility for accepting those recommendations, or over-riding them and choosing a different course of action, rest with a hotel's staff members.

Yield management allows hotel employees to make more-informed decisions. It also monitors the consequences so that employees learn from their decisions. Mistakes are repeated less frequently, and good decisions are replicated more often. Yield management does not take over a company's decision making.

[2] James Santo, "Cruise Discounts Force Lines to Focus on Yield," Tour and Travel News, March 23, 1992, pp. 1, 60.

Myth 3: YM Works Only When Demand Exceeds Supply

The best-known applications of yield management—overbooking and discount control—are most useful when excess demand exists and a hotel is in the luxurious position of having to choose the type and amount of demand it will satisfy. But for most hotels such conditions are not typical, and there is a widespread perception that yield management provides little help when supply exceeds demand.

The myth is probably less true for hotels than for airlines. Hoteliers can manage their demand to a finer level than airline executives. If demand for a particular flight on a specific day is low, it is extremely difficult, or at least expensive, for an airline to stimulate demand for that flight. But, given sufficient notice, a hotel can stimulate demand for specific dates in cost-effective ways.

Demand forecasting is a basic element of yield management that enables a hotel to identify potential low-demand days far enough in advance to take appropriate actions. One firm used some of the earliest yield-management tools developed to identify such opportunities and alerted the sales department to take action. Such tools can be most effective when they are tied to sales-agent performance goals, thereby coordinating two elements of a yield-management program.

Demand may be low for an identifiable pattern of dates (e.g., weekends, the first week of a month, Tuesdays and Saturdays, weekdays between Thanksgiving and Christmas), rather than just for sporadic dates. When such conditions occur, yield management can help marketing and sales departments identify opportunities for hotels to increase their revenues by designing and delivering new products that appeal to a wide spectrum of market segments. Hotels using yield management can thereby increase the demand for their products.

Marriott's use of low-price advance-purchase rates is an attempt to attract customers who would normally stay at lower-priced hotels. Those new products do not create demand so much as reveal demand for a Marriott stay that was not apparent under the previous pricing regime. Yield management helps a hotel modify its pricing structure and control the sale of its product so that the hotel can expand the appeal of its product while mitigating the revenue dilution that would result if such changes were not controlled.

Myth 4: YM Is Price Discounting

Describing the use of yield management by hotels, a recent article contained the following statements: "Pricing changes at hotels and conference centers may be computer-driven now, but the principle is essentially unchanged: Discount to fill rooms during periods of low demand, and raise rates during the peak times." "If months slip by and rooms remain open as particular dates approach, a hotel may become quite willing to drop rates." "Because hotel yield-management systems expect fewer guests on weekends, rates are usually set lower [on weekends]."[3]

[3] Heather Schroeder, "Yield Management: Not Necessarily a

Those statements accurately describe typical hotel pricing and yield-management programs. They also reveal the extent to which yield management is being misused by the hotel industry.

Raising and lowering prices dynamically for a given date, depending on demand, is a business decision. It may or may not be a good decision, but it is not a yield-management decision. Yield management focuses on how much of a product to sell at established prices. It does not tell a hotel what prices to charge or whether to change prices. (But it does indicate when to open and close rate classes.) If weekend demand for a hotel is low, but the demand is from business travelers for whom the hotel's location is of critical importance, lowering prices may actually reduce the hotel's revenue. As discussed earlier (see myth 1), one reason hotels have adopted unstable pricing programs is because they have failed to establish product-delivery systems that are consistent with implementing yield management. For example, until recently the use of market segmentation was minimal or absent from most hotel pricing programs. Again, the idea of raising prices when demand is high and offering discounts when demand is low may raise revenues, but it should not be confused with yield management. Although yield management does not tell a hotel the right prices to charge, the mechanisms used to monitor demand can identify opportunities to improve the pricing structure. For example, when a hotel introduces a new price point, estimates are made of:

- The amount of demand for the new rate that would have existed in any case (i.e., customers who would have reserved rooms at each of the alternative rates had the new rate not been offered);
- The amount of demand that is stimulated by the new rate (i.e., customers who would have reserved a room with a competitor or who would not have stayed at a hotel); and
- The effect on revenues.

Such estimates are used to evaluate the relative profitability of offering a particular rate. Yield-management programs alert a hotel's management when the demand for a rate is not sufficient to justify its existence. The rate can then be modified or eliminated.

A yield-management program will inform a hotel's management when its pricing structure needs to be revised and in which direction to carry out the changes. It will not tell management exactly how to carry out the changes or establish the magnitude of the changes.

Myth 5: Yield Management Is Incompatible with Good Customer Service

Actively using pricing and inventory controls to increase a hotel's profitability increases the risk of providing reduced customer service *unless* appropriate actions are taken. For example, by implementing an overly simplistic yield-management program that does not recognize the long-term value of regular customers, a hotel is likely to anger or disappoint those valuable customers and thereby lose potential repeat business. Consistent pricing is often more important for repeat customers than for occasional customers. Therefore, even when demand is unusually heavy for an upcoming date, it is unwise to refuse a loyal customer's request for a normally available discount rate as that guest represents future sales. A hotel's yield-management system should be able to evaluate both the short-term and the long-term revenue implications of inventory-control decisions. Yield management should focus on increasing long-term and not just short-term profits.

Another area that is particularly susceptible to customer-service problems involves overbooking. When a hotel takes greater risks to obtain additional sales and profits, it may not be able to honor all reservations. Customer-service programs should identify and resolve potential conflicts so that all customers are satisfied. As part of an overall yield-management effort, well-designed customer-service programs often replace *ad hoc* operations, thereby benefiting customers and employees and improving customer-employee relations.

Located near popular ski areas, where demand depends on the weather, one hotel found it necessary to overbook heavily to avoid having empty rooms during the winter ski season. When more guests arrived than could be accommodated, the hotel found alternative accommodations for the late-arriving guests. Despite receiving various types of compensation, many of the displaced guests were annoyed, because this hotel had an extremely desirable location for skiers. The hotel then introduced a new policy: When it anticipated oversales, it reviewed its guest list and identified guests who were going to check out

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Scourge," Business Travel News, April 20, 1992, p. A10.

the next day. The hotel offered some of those guests the option of checking out a day early and spending their last night in a luxury hotel near the airport at no extra cost. The offer was well received. The hotel received higher customer-satisfaction ratings because most guests who were displaced had volunteered to change hotels, and the switch involved only one night rather than an entire stay. The hotel increased its long-term revenues as a result, even though it occasionally offered the option when actual check-ins ended up being fewer than expected.

Unfortunately, many of the early implementations of yield-management concepts focused on short-term revenue gains. Customer service, which is important from a long-term perspective, was not a major focus. The lack of a long-term revenue perspective was a flaw in the design and implementation of those early programs—many of which continue to be used—not a flaw in the concept of yield management.

When a yield-management program focuses on both short-term and long-term revenue gains, improved customer service is a by-product.

Myth 6:
YM Is Too Complex

If a yield-management program is allowed to evolve slowly, it will not be too complex. Some airlines have trained their staffs and developed corporate procedures and policies that support sophisticated implementations. But they developed those programs over a long period. Had the current programs been implemented all at once, ten years ago, they might have had disastrous consequences for the companies. Airlines that have recently begun benefiting from yield management are implementing much simpler programs than their competitors with established programs. Their programs will increase in complexity over the years.

A yield-management program should recognize and account for the company's current environment, including its computer-system limitations, staffing constraints, and corporate procedures. That is especially important in the lodging industry, where personnel turnover rates can be high. The development of the program should move slowly, or the hotel takes a great risk. Initial components of the program will eventually support more sophisticated components, and the program will increase in both complexity and automation level. As the program evolves, the hotel reaps greater rewards.

Some hotels have enjoyed great success from simply educating their employees about yield management and revising selected hotel procedures. Upselling programs, accompanied by creative management methods and monitoring procedures, have raised hotels' average daily rates and increased customer satisfaction without reducing occupancy rate. Some of those programs have been implemented with opportunities for employees to benefit as well. As a side benefit for the hotel, that has helped reduce employee turnover.

Myth 7:
YM Doesn't Address "My" Problems

When hoteliers claim that yield-management concepts are not relevant to their operations, they are usually thinking of how yield management is implemented at another hotel. And when they explain why the yield-management techniques they have seen don't apply to their operations, they are usually correct. What they don't realize is that the yield-management techniques appropriate for their hotels could differ significantly from those they have seen. A hotel can implement yield management in many ways. The best way depends on the hotel's particular characteristics.

One sales director was convinced that yield management could not be used at his hotel because the hotel had only one rate. However, it turned out that the hotel did offer group rates and corporate negotiated rates. Opportunities emerged for providing the hotel with yield-management assistance for negotiating those rates and monitoring customer purchasing behavior.

Myth 8:
YM Programs Automatically Increase Revenues

Yield management supports an active approach to revenue enhancement. But if it is not carried out carefully, it can result in reduced, rather than increased, revenues. One of the reasons it has been successful is that it stresses the need to quantify the impacts of pricing and inventory-control decisions. That allows a hotel to try various tactics and identify, at an early stage, the programs that are not increasing revenues. Implementing a yield-management program without including that focus is risky.

Various tools and performance measures have been developed that allow hotels to estimate the revenue impacts of their decisions more accurately. Those tools, such as computer-simulation models, typically use the actual reservation data for the hotel, combined with estimates of reservation requests that were not accepted. The techniques can also be used to identify strategies that, although they look good on paper, would result in lost revenue if they were implemented. The techniques have convinced senior hotel executives of the value of inventory-control strategies.

Myth 9: Hotels Using YM Don't Need to Change a Thing

When a hotel negotiates a price for groups that differs from its price for individuals, it is practicing yield management. When a hotel stops accepting reservations or offering discount rates for a given night, it is practicing yield management. When a hotel sets a different rate for weekdays and weekends, it is practicing yield management. It is a rare hotel that does not practice some level of yield management.

Yield management is implemented across a wide spectrum of business processes. It can be carried out using simple or complex decision supports. It can be carried out well or poorly. A successful implementation will produce greater revenues for the hotel and more satisfied customers. A poor implementation will produce dissatisfied customers and may even result in a revenue loss (and the hotel may not know why).

Saying that a hotel is practicing yield management is not saying a lot. It is much more important to evaluate how it is practicing yield management, what it could do better, and where the additional benefits from yield management lie. A successful yield-management program evolves and produces a benefit stream. Various tools and performance measures have been designed to assist hotels to quantify the benefit streams arising from specific yield-management actions. For example, "spoilage" measures are defined to estimate the amount of revenue and number of room nights that are lost when reservations are refused prematurely. It is common for hotels to stop taking reservations for a future date when the advance reservations reach a certain level, and it is also common for there to be unsold rooms on that date due to cancellations and no shows. Such rooms are termed "spoiled" because the hotel could have sold them be taking additional reservations. By tracking spoilage levels, a hotel can estimate the amount of additional revenue it earns as it improves its ability to accept the "correct" number of reservations. It is interesting to note that reducing spoilage not only increases a hotel's revenues but it also enables more people to stay at their preferred hotel—something of no small consequence when trying to increase customer loyalty.

Computer simulations also help hotels estimate the incremental benefits of their yield-management decisions. A highly regarded and frequently used technique is simulating the impacts of alternative inventory-control decisions by using historical reservations data augmented by estimates of refused reservations requests. This procedure, also known as "backcasting," enables hotels to develop extremely useful estimates of how much additional revenue results from their yield-management decisions, as well as valuable insights on how those decisions can be improved. It is a powerful way to demonstrate the added value of yield management to senior-level executives.

Learning more about yield management has helped hotel managers identify ways they can change their operations. Recently a hotel company asked Arthur D. Little to conduct a two-day yield-management workshop for about 40 of its sales managers and front-office personnel. At the start of the workshop, about 15 of the participants indicated that their hotels' GMs believed that their hotels were practicing yield management and that few changes, if any, were needed. None of the participants could offer counter examples to dispute the GMs' beliefs. But by the end of the workshop, all those sales managers were prepared to discuss additional yield-management opportunities with their GMs.

Myth 10: Hotels Can't Use YM if Competitors Don't

There is a popular saying among those who practice yield-management concepts: "We want all our competitors to be using yield-management concepts. We just want to do it better than they do."

Yield management adds a level of complexity to a hotel's pricing structure. At some hotels one price may be replaced by several, each price associated with different service options or purchase restrictions. At other hotels the result may be a better-informed negotiation with groups and greater ability to suggest alternative dates that provide the group with lower room rates while increasing the hotel's revenues (e.g., due to less revenue displacement). At still other hotels new ways of measuring sales-manager performance encourage sales behaviors that are better aligned with maximizing long-term profits for the hotel.

The effectiveness of some of those actions is clearly driven by the actions of competitors. For example, if a competing hotel offers an extremely low rate to a group that your hotel had expected to accommodate during an off-peak period, you may have to offer a lower rate than you would normally offer. Yield-management tools may be of little value in such an instance, although they might help you estimate the revenue impacts of accepting the group at the low rate versus losing the group. A hotel often accepts a group at a low rate and later finds out that it lost money by doing so.

Yield management does not operate in a vacuum. But a hotel can benefit from it even when its competitors don't. Creative users of yield management benefit the most, no matter what actions their competitors take.

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Yield management is neither a cure-all for an unprofitable hotel nor a way of confusing customers and forcing them to pay higher rates. It is an evolving process that can increase a hotel's revenues and enable it to deliver products that are better suited to its customers' needs. How well yield management works for a hotel depends on how well the program is designed and implemented.

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Dr. Lieberman began his career in yield management at American Airlines in 1984. A pioneer in expanding the pricing and inventory control concepts of revenue management to different industries, he is recognized internationally as perhaps the world's leading expert in non-traditional implementations of revenue management. Prior to forming Veritec, Warren led the Travel and Hospitality Industries Consulting Practice for Talus. Dr. Lieberman has provided design and technical leadership in the development of revenue management systems in a variety of industries, including cruise line, timeshare exchange, and car rental.

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