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The Basics of Yield Management

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Abstract

Yield-management systems have boosted revenue at many properties, but these electronic tools are not always compatible with the operating atmosphere of a hotel. If you want to introduce yield management at your property, you may need to make some changes first.

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by Sheryl E. Kimes

YIELD MANAGEMENT is becoming part of the standard operating procedure for many hotels with sophisticated electronic property-management systems. Appropriately tailored to the hotels they serve, yield-management systems generally increase revenue and take much of the guesswork out of rooms-management decisions.

However, installing a yield-management system can create problems if management does not lay the proper groundwork. This article addresses the issues operators should consider in determining whether yield management is right for their property and discusses

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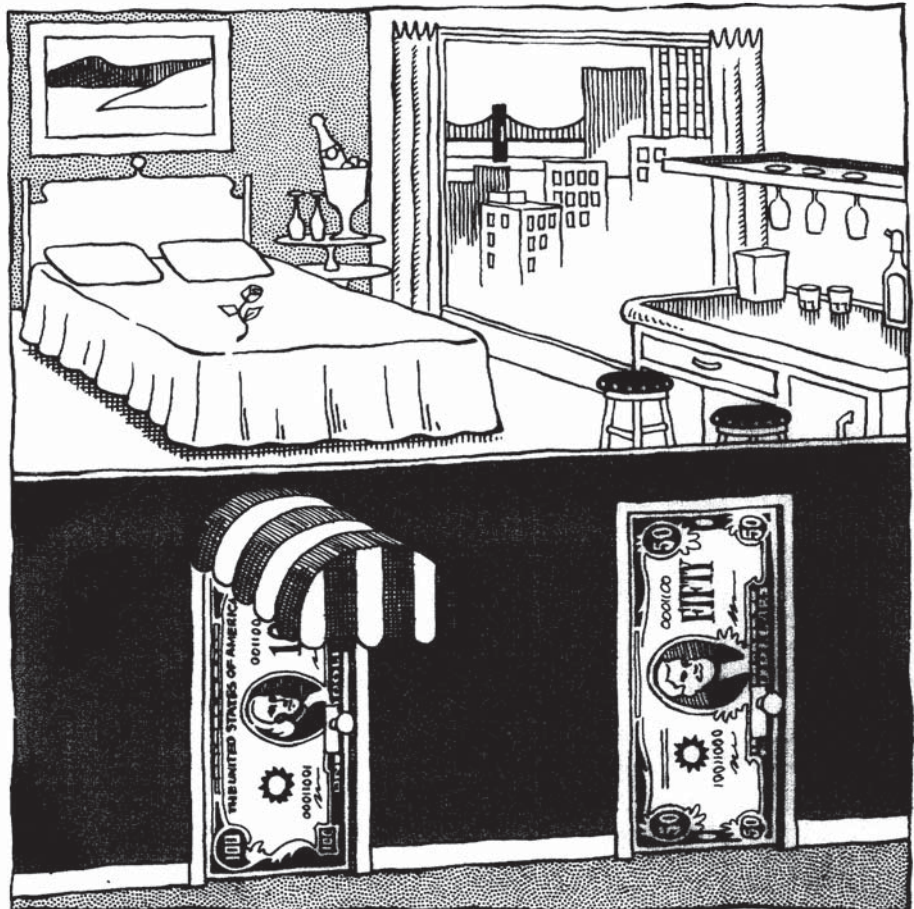
What is Yield Management?

Basically, yield management is the process of allocating the right type of capacity to the right kind of customer at the right price so as to maximize revenue or yield. In the case of hotels, yield management is concerned with the number of rooms that should be sold at various rate levels. Obviously, a trade-off exists. The manager would prefer to sell all rooms at the highest rate possible, but since this rarely is feasible, following this policy may lead to empty rooms and lost revenue. Conversely, if a hotel fills its rooms with low-price customers, the revenue that could have been obtained from higher rates will be lost. The objective of yield management, then, is to define what these trade-offs should be. How many rooms should be allocated to and protected for each market segment over time?

Orkin[1] defined the yield statistic as the occupancy rate multiplied by the rate efficiency. The rate efficiency is the average room rate divided by the maximum room rate. As he points out, hotel managers need to be concerned with maximizing yield, or revenue, rather than focusing only on a high occupancy rate or a high average room rate. Another definition of yield management, borrowed from the airline industry, is maximizing revenue (or yield) per available room. This may be a more appropriate definition because of the difficulty in defining the maximum room rate.

Yield management consists of two separate but related parts: room-inventory management and pricing. The inventory-manage-

ment process deals with how different types of rooms are to be allocated to demand. The pricing procedure is more concerned with the best prices to charge in different situations. In this article, I will concentrate primarily on the room-inventory component of yield management.

Where Does Yield Management Work?

The airline industry is considered the birthplace of yield management. After deregulation in the late 1970s, airline competition increased, and the airlines tried to operate their planes as efficiently as possible. Yield management was one of the methods developed as a way of increasing competitive advantage and increasing revenue. In airlines, yield management is concerned with selling the right seat to the right customer at the right price so as to maximize yield.

The airline and hotel industries have several characteristics in common that make them ideal candidates for yield-management systems. Both have relatively fixed capacities. Once an airplane has been purchased or a hotel has been built, it is rather difficult and expensive to increase capacity. The idea, then, is to use your capacity in the best (most profitable) way possible.

Yield-management techniques are appropriate when a firm is operating with a relatively fixed capacity, when demand can be segmented into clearly identified partitions, when inventory is perishable, when the product is sold well in advance, when demand fluctuates substantially, and when marginal sales costs are low but marginal production costs are high.

Ability to segment markets. For a yield-management program to be effective, the firm must be able to segment its market into different types of customers. For example,
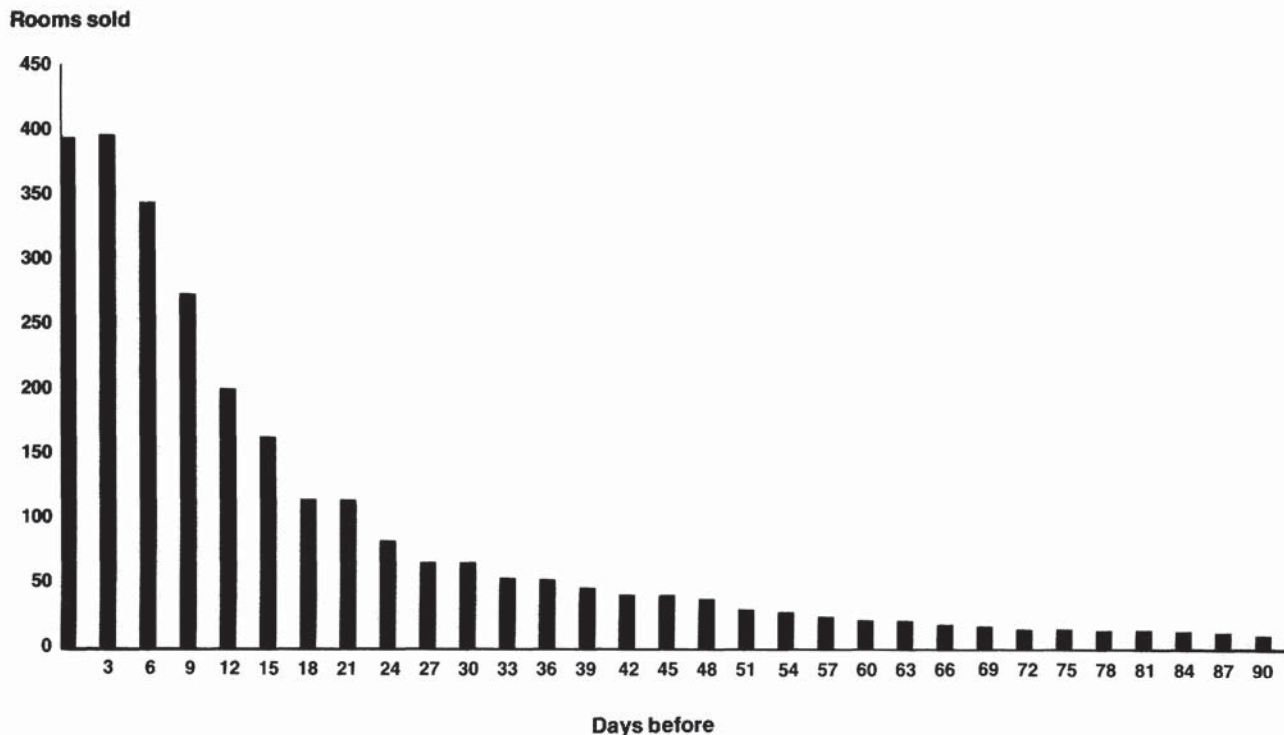
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[1]Eric B. Orkin, "Boosting Your Bottom Line with Yield Management," *The Cornell Hotel and Restaurant Administration Quarterly*, 28, No. 4 (February 1988), pp. 52–56.

EXHIBIT 1
Typical individual-sales booking curve

Rooms sold

Days before

This booking pattern is typical of business-class hotels that cater to individual business travelers. Occasionally, business travelers book in advance in anticipation of an upcoming meeting or conference. But it's more common for business travelers to book a hotel room immediately before a trip, either because the trip itself was scheduled on short notice in response to a specific need or because busy executives hesitate to book ahead, not knowing if something more pressing might interfere with travel plans. When a hotel's booking pattern approximates this curve, the yield-management system will discourage early bookings at lower rates and advise management to keep rooms available at higher, late-booking rates for the predictable high volume of last-minute reservations.

business and pleasure travelers can be split easily into separate groups. The basic idea is that hotel managers will have different marketing plans for the different types of customers. Hoteliers would like to be able to sell these segments rooms that best fit their needs. In the case of pleasure travelers, lower-priced rooms that must be booked a certain length of time ahead may be most appropriate. With business travelers, higher-priced rooms that have no time penalty may work best.

Perishable inventory. Clearly, hotel rooms are a perishable inventory item. If the room is not sold one night, that room-night is lost forever, and the hotel manager cannot put it into inventory for use at some other time. Airlines and rental-car firms face similar problems.

Product sold in advance. Some transient hotels sell most of their rooms a few days in advance, but in some situations, reservations are made well in advance of the day desired. In the case of group sales, reservations may be made several years in advance. When the product is sold in advance, the manager is faced with uncertainty. Should a group that wants to pay a low rate be accepted, or should the manager wait to see if higher-paying customers will appear? How many super-saver rooms should be sold? Might someone who would pay a higher rate want to reserve those same rooms? With a good yield-management system, these types of questions can be answered.

Fluctuating demand. Hotels face widely fluctuating demand patterns. Demand varies by season of the year, by day of the month, and by time of the week. Yield management can be used to help temper some of the demand fluctuations by helping to increase occupancy during slow times (by decreasing price) and by increasing revenue during busy times (by increasing price). If

EXHIBIT 2
Typical group-business booking curve

Rooms sold

[Bar chart showing rooms sold declining as days before increases. Y-axis ranges from 0 to 450 in increments of 50. X-axis shows "Days before" from 3 to 90 in increments of 3. Bars start near 395-430 rooms at 3 days before and decline to about 45 rooms at 90 days before.]

Days before
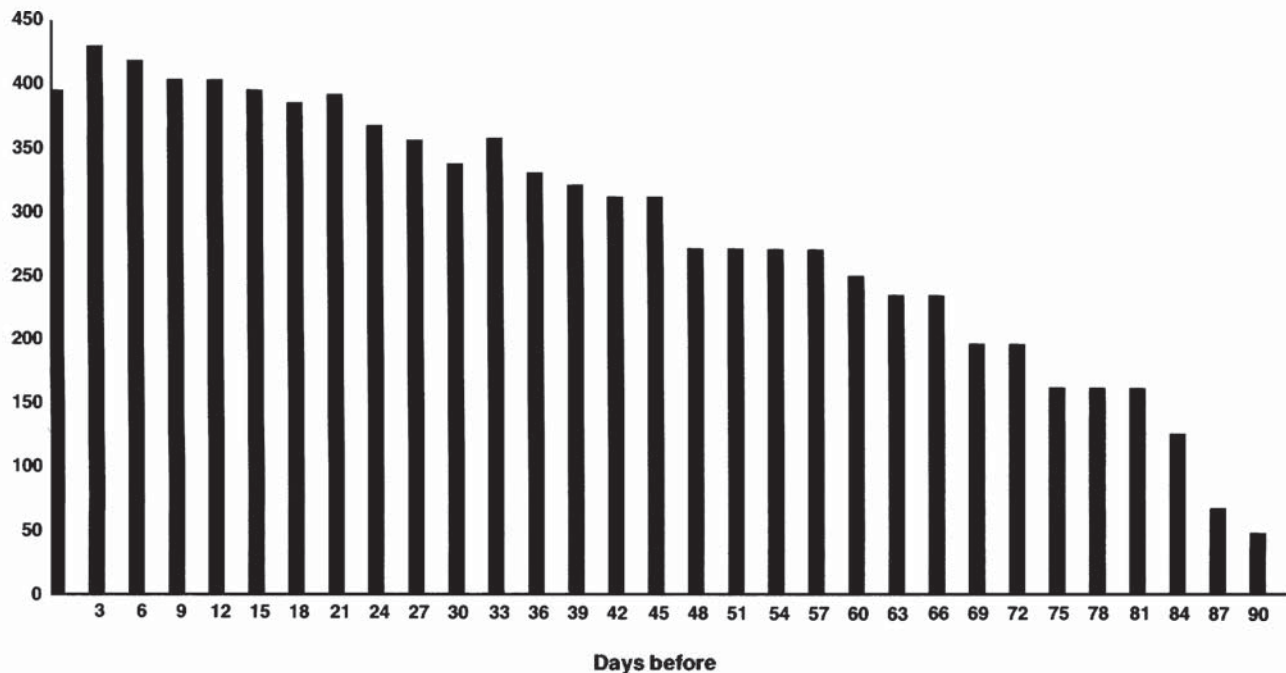
Unlike individual business travelers, groups generally make travel plans in advance to ensure that a hotel will have a sufficient number of rooms available to accommodate them. This booking pattern, typical of a hotel that caters to groups, shows that the hotel reserves over 70 percent of its rooms a month or more in advance. By three weeks before a given date, the hotel has generally sold all but a handful of the rooms it will be able to sell for that date. When a hotel's booking history approximates this curve, the yield-management system will recommend accepting group reservations well in advance at appropriate group rates.

a manager knows when demand peaks and valleys are going to occur, he or she will be better able to plan for them.

Low marginal sales costs. Once a certain number of rooms are sold, it does not cost much more to sell another room. The hotel and staff are already in place, and one more room does not make much of a difference in terms of cost.

High marginal production costs. Conversely, hotels face high marginal production costs. For example, if a property is full and a customer wants a room, another room cannot easily be added onto the property because of the large

fixed cost. Hotels add capacity only in large chunks and only after demand patterns have been carefully studied.

Requirements of a Yield-Management System

Many different types of yield-management systems exist, but most require the same sort of information. The hotel must know the pattern in which customers book reservations, must have good information on demand patterns by market segment, must have a defined overbooking policy, and must have an idea of the effect of changing price on demand. Obviously, the hotel needs a

good information system that keeps the data easily accessible.

Booking patterns. Most yield-management systems require information on how reservations are made for a particular day. For example, if the manager starts to look at a particular night three months in advance, how many reservations come in for each market segment each day? Exhibit 1 shows a hotel in which reservations are made near the day of arrival, while Exhibit 2 shows a more group-based hotel in which reservations are generally made long before the day of arrival. The yield-management system uses this information to help

> **Top management cannot assume that yield management will just "happen"; it requires careful planning and training.**

track how you *are* doing compared to how you *should* be doing.

Demand patterns by market segment. To operate any yield-management system, a hotel must have historical demand information available by market segment. This information must also be broken down by time of the year and day of the week. For example, how many concierge rooms are usually sold on Tuesday nights in the summer? How much does this usually vary? These historical data are used to build forecasts for each of the market segments. The demand forecast is one of the building blocks of yield management. Without it, the yield-management system cannot function properly.

Overbooking policy. Most hotels have some sort of overbooking policy. With a yield-management system, the overbooking policy should be clearly stated. The level at which management is willing to overbook should be built into the yield-management system.

Effect of price changes. The manager should have an idea of how changing price will affect the demand for a particular class of rooms. Airlines change prices several thousand times a day in response to competitive pressures. Clearly, this level of sophistication is beyond that required for the average hotel operator, but still, the manager needs to be aware of competitive prices and what effect a price change will have on demand.

Good information system. To obtain all of the information listed above, the hotel must have an excellent information system. If the hotel is part of a central reservation system, the property-management system and the central reservation system must be integrated. In this way, as reservations are received and room availability changes, both reservation systems will be aware of the latest information. Failure to

have this type of reservation system could lead to many problems, including selling rooms at too low a price or not being aware of the availability of certain types of rooms.

Specific Problems with Hotel Yield Management

Yield-management techniques developed in the airline industry are not always applicable to the hotel industry. Yield-management systems for hotels need to address the problems of multiple-night stays, the multiplier effect of rooms on other hotel functions (such as food and beverage), the booking lead times for various types of rooms, the lack of a distinct rate structure, and decentralized information systems.

Multiple-night stays. Airline yield-management systems must deal with different flight legs within a hub-and-spoke system, while hotels must deal with guests staying over multiple nights. If a guest wants to arrive on a low-demand day and stay through several high-demand days, what rate should be quoted? Clearly, the manager would like to sell the room on the low-demand day, but could the hotel obtain a higher price on the high-demand days? These trade-offs need to be addressed by the yield-management system.

Multiplier effect. Rooms are certainly not the only thing sold in a hotel. Restaurants, convention space, and other services may contribute substantially to a hotel's profitability. By concentrating only on the rooms function of a hotel, the yield-management system could be ignoring revenue opportunities in other portions of the hotel. Fortunately, this added function could be built into a yield-management system.

Booking lead time. Because some customers, most notably

groups, book far in advance, the manager must determine how large a lead time needs to be studied for each day of hotel operation. Should the group business be treated as part of the yield-management system, or should it be treated as a separate entity? How long a lead time should be considered?

Lack of distinct rates. Currently, most hotels do not have as distinct a set of rates as do airlines. With the adoption of a yield-management system, hotels should consider developing a firmer and more diverse set of rates. By so doing, they will get more benefits out of their yield-management systems.

Decentralized information. As mentioned above, a good information system is essential to a yield-management program. Some means of combining property information with central-reservations information must be built into the system, or the yield-management program could generate erroneous suggestions.

Managerial Concerns

Very little has been written on the managerial implications associated with yield management. Using yield management may give a hotel company a competitive edge, but it could also result in alienated customers and severe employee-morale problems. In addition, effective use of a yield-management system requires intensive employee training. As with any new approach to business, a firm commitment from top management is essential.

Alienating customers. Consumers seem to be resigned to the fact that airlines charge different prices depending on how far ahead a ticket was bought and what restrictions were met, but will hotel customers accept this pricing method? The airline industry comprises a

small number of major competitors, and customers seldom have much choice. Hotels, on the other hand, have numerous competitors. If customers don't like having to pay different prices for the same room, they may decide to patronize the competition. Likewise, customers may believe it's unfair to pay a higher price for a room than someone would who reserved it a few weeks earlier. Hoteliers may face a customer-education problem.

Employee-morale problems. Yield-management systems take much of the guesswork out of how many rooms to sell at what price, but they also take some of the judgment responsibilities out of reservationists' and front-desk workers' jobs. If a yield-management system is not structured to allow workers some latitude to use their judgment, the people who have to use it might grow to resent the system.

Incentive and reward systems. Yield-management systems could also cause a problem for group-sales departments. Typically, salespeople in such departments are rewarded by the amount of sales they make. But a yield-management system might indicate that it is not beneficial for the hotel to accept a group sale at a low room rate for the time in question because that block of rooms could be sold at a higher rate. Unless incentive systems are changed, group-sales workers might find that yield-management recommendations work against them.

Similarly, managers are often rewarded on the basis of occupancy or average room rate. With a yield-management system, the manager needs to be concerned with both of these factors. Unless the incentive system is changed to reflect this, managers may resent using yield management.

Employee training. As with any new system, a yield-management

system will require extensive training of all employees. The employees must clearly understand the purpose of yield management, essentially how it works, and how it affects their jobs. Top management cannot assume that yield management will just "happen"; it requires careful planning and training.

Organization of yield-management function. Clearly, with independent hotels, a yield-management system must be located at the property level. Because of the decentralized nature of most hotel chains, yield-management systems are often best located at the property level but need to be tied into the central reservation system.

In terms of what hotel department should be responsible for the yield-management system, arguments for several departments (sales, operations, reservations) could be made. Ideally, all areas of the hotel will be involved with the yield-management program. Only when this occurs will the program be truly successful.

Top management commitment. Without a commitment from top management, yield-management systems may be doomed to failure. Unless all employees know that the yield-management system is considered essential to the success of the company, they may be inclined to treat it less seriously than top management feels they should.

Companies using yield-management systems report a substantial increase in revenue with a minimum amount of investment. For a yield-management system to work, the hotel manager must have a strong commitment to it, have the necessary data, and have a strong information system. He or she needs to be fully aware of the managerial implications associated with a yield-management system and should be in a position to make any necessary adjustments. □