

Perceived Fairness of Yield Management

Applying yield-management principles to rate structures is complicated by what consumers perceive as unfair practices.

BY SHERYL E. KIMES

As yield management gains in popularity in many service industries, the question of how customers react to yield management remains unanswered. Consumers seem to accept the application of yield management in the airline industry, but little is known about their acceptance of such a policy in other industries.

The airlines have been using yield management longer than other industries have, and customers seem to be used to the fact that they are charged different fares for the same flight and that they will receive specific benefits if they accept certain restrictions. In a sense, even though they are buying a similar seat, they are buying different products, because of the associated restrictions.

In other industries, such as the hotel and cruise-line industry, obvious restrictions may not be in place, although customers may pay different prices depending on when they place their reservations. A customer who pays more for a simi-

lar service and cannot perceive a difference in the service may view the situation as unfair. If customers view yield management as unfair, the increased revenues resulting from yield management may be short-term. On the other hand, nearly all capacity-constrained service firms should consider adopting a yield-management system if customers can be persuaded that yield-management measures are, in fact, fair.

In this paper I analyze the perceived fairness of yield management in the airline and hotel industries by describing yield management, discussing the concept of perceived fairness, and presenting the results of a survey on the perceived fairness of yield management in the airline and hotel industries.

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Yield Management

Yield management is a method that can help a firm sell the right inventory unit to the right customer at the right time and for the right price. It guides the decision of how to allocate undifferentiated units of limited capacity to available demand in a way that maximizes profit or revenue. The question is, how much should one sell at what price and to which market segment?

The concepts behind yield management can easily be seen in the airline industry. The yield is either revenue per seat-mile or revenue per passenger-mile. Airlines typically offer several price classes, such as full-fare, maxi-saver, and supersaver.

Since the airlines cannot fill their planes with full-fare customers, they try to fill them by offering reduced fares. A tradeoff develops between the desire for filling all the seats and the desire for selling seats at the highest price. Owing to the perishable nature of an airline's inventory, an empty seat represents an opportunity lost. The airlines must decide how many discount fares to sell while making sure they have enough seats left to sell to late-booking full-fare passengers.

Many airlines have solved the problem with yield management. They use a combination of seat-inventory management and pricing tools to achieve maximum revenue. Since yield management can provide more revenue from a fixed capacity, it is an attractive option. The airline industry was the first to address systematically the capacity-allocation problem with yield management and has achieved a great deal of success.¹

Other firms in the service industries, such as lodging, car-rental, cruise-line, and freight-transport firms, have noticed the success of yield management in the airline industry and have tried to adapt yield-management concepts to their industries. In each of those industries, yield is the

revenue per available inventory unit. For example, yield for a cruise line is revenue per available cabin. All those industries have a fixed capacity, and all have easily segmented markets and stochastic demand for each type of service.

When service firms are constrained by capacity, financial success often depends on management's ability to use capacity efficiently. Yield management in capital-intensive service industries such as the airline industry is often equated with revenue (or yield) maximization because of the high fixed-cost nature of the industry. The marginal cost of selling another seat and transporting the passenger in it is far less than the marginal revenue. The same is true in the hotel industry, where the cost of filling and then cleaning one more room is far less than the revenue that is generated by selling that additional room. So it makes a great deal of sense for hoteliers to sell some number of rooms at deeply discounted rates (rooms that otherwise would be vacant) so long as the revenue is greater than the cost of opening the room.

Firms that institute yield-management practices need to be careful, however. Since yield management concentrates on maximizing yield, companies using it may focus on short-term profits, ignoring the long-term profits that could result from improving service or making other product adjustments. The results can be disastrous.² Many service organizations are successful because of the high-quality services they offer. Focusing on efficient use of resources may take managerial attention away from service, resulting in a loss of customers at considerable financial cost.

Consumers seem to accept the fact that airlines charge different prices depending on what restrictions are met, but how do customers of other types of services react? In the airline and rental-car industries there are only a few major competitors, but in the hotel industry there are many competitors. A customer who discovers she or he is paying a higher price for a room than a customer who reserved a similar room a few weeks earlier may simply go elsewhere or not come back.

¹ See, for example: Robert G. Cross, "Strategic Selling: Yield-management Techniques to Enhance Revenue," presented to Airline Industry Seminar, Shearson-Lehman Brothers, Key Largo, Florida, February 1986; Peter Paul Belobaba, "Air-travel Demand and Airline-seat-inventory Management" (unpublished doctoral dissertation, Massachusetts Institute of Technology, 1987); and Peter Paul Belobaba, "Application of a Probabilistic Decision Model to Airline-seat-inventory Control," *Operations Research*, Vol. 37, No. 2 (1989), pp. 183-197.

² Robert H. Hayes and William J. Abernathy, "Managing Our Way to Economic Decline," *Harvard Business Review*, Vol. 58, No. 4 (1980), pp. 67-77.

That is simply not true of airline passengers, who once in the air cannot so easily change their reservations or the company with which they're doing business.³

Perceived Fairness

The issue of fairness has been studied extensively in the field of marketing, and although most studies have involved nontravel products, we can learn from the general issues presented. Several researchers have shown that fair behavior is instrumental to the maximization of long-run profits.⁴

Researchers use the concept of a "reference transaction" when discussing fairness.⁵ A reference transaction is how customers think a transaction should be conducted and how much a given service should cost. Reference prices come from market prices, posted prices, and past experience with the company. For example, customers of a particular hotel may know that they generally pay \$80 for a standard room, and so the reference price for a room at that hotel would be \$80.

Customers believe that the value to the firm should equal the value to the customer.⁶ If that relationship becomes unbalanced by increasing the value to the firm or decreasing the value to the customer, the customer may view subsequent transactions as unfair. For example, if a hotel increases the price for its rooms for no apparent reason, it is increasing the firm value without increasing the customer value. The customer may then view the transaction as unfair. Similarly, if a

hotel imposes substantial restrictions on customers in exchange for only a somewhat lower price or without lowering the price at all, customers may view the transaction as unfair.

The principle of dual entitlement holds that most customers believe that they are entitled to a reasonable price and that firms are entitled to a reasonable profit.⁷ Three hypotheses emerge from that principle: (1) Customers feel that raising the price to maintain profits is fair. If costs increase, customers consider it reasonable for the price of

Researchers have shown that fair behavior is instrumental to the maximization of long-run profits.

the service to increase; (2) Customers believe that raising the price to increase profits is unfair; and (3) If costs decrease, customers believe that it is reasonable for the company to maintain the same price. That may be because the customers are paying what they think they should, or because they believe management should reap the rewards of its cost-cutting efforts.

If the principle of dual entitlement holds true, yield management may be perceived to be unfair. Customers generally view justified price differences (or differences they perceive to be justified) as fair, but they view unjustified price increases to be unfair. If customers believe that the transaction is different from the reference transaction only in price, they may believe that the firm is receiving more than its reference profit and is behaving unfairly.

How to increase prices. Several ways of increasing price without incurring customer wrath are available.⁸ One method is to increase the reference price. Simply put, that means increasing the rack or full-fare rate. Airline records show that 95 percent of the passengers receive some sort of discount. Most hotel customers also receive some discount off the rack rate, and if in-

³ It may be that the intrinsic differences between airlines' and hotels' market conditions are integral to the successful way airlines use yield management, such that airlines' yield-management practices are not all transferable to hotels. That is the long-debated and key issue of hotels' limited success to date with yield management.—Ed.

⁴ See: Richard Thaler, "Mental Accounting and Consumer Choice," *Marketing Science*, Vol. 4, No. 3 (1985), pp. 199–214; Daniel Kahneman, Jack L. Knetsch, and Richard Thaler, "Fairness as a Constraint on Profit Seeking: Entitlements in the Market," *American Economic Review*, Vol. 76, No. 4 (1986), pp. 728–741; and Joel E. Urbany, Thomas E. Madden, and Peter R. Dickson, "All's Not Fair in Pricing: An Initial Look at the Dual-entitlement Principle," *Marketing Letters*, Vol. 1, No. 1 (1989), pp. 17–25.

⁵ Kahneman, Knetsch, and Thaler.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ Thaler, p. 211–212.

formed of the discount, may consider themselves lucky to have received it.

Another method of increasing price is to attach additional services or products to the services sold at the increased price. For example, additional amenities, meal or drink discounts, or incentives for future business can be offered. The key is to increase the perceived value of the transaction.

Third, the service can be sold as part of a package, obscuring the price of the service. For example, when a weekend hotel special includes wine and meals, the customer may not know the price of the room. And when a cruise line includes the price of air travel or ground transportation in the cruise package, the customer only knows the total price, not the cost of the individual components.

The fourth method is to attach restrictions to discounted prices so that higher prices (with fewer restrictions) seem fair by comparison. Restrictions may include (1) booking a certain length ahead of time, (2) staying for a minimum length of time, (3) staying over a particular night, (4) having a change or cancellation penalty, and (5) having a nonrefundable reservation. If restrictions are tied to different prices, customers may view the transaction differently and may view the different prices as fair.

Airlines have used that strategy effectively, associating various restrictions with the sale of discounted seats. The more restrictions the customer is willing to accept, the deeper the discount available. Customers are aware of the restrictions and can choose to take advantage of the discounts.

Restrictions and Benefits

If firms offer customers a benefit such as a discount (a net gain to the customer), they may impose restrictions that will balance the discount. But if they go too far and impose restrictions that are too strong, that will change the balance of the transaction and be perceived as unfair. That principle works in reverse, too. If a firm wants to impose additional restrictions on customers, it must give the customers something in return for this restriction—for example, a discount, additional amenities, or an upgrade. Again, the question is twofold: How large a restriction is acceptable, and how large a benefit must be extended?

By imposing restrictions, the firm takes away some of the value that customers gain from the transaction and increases the value to the firm. To correct that imbalance, the firm must offer the customer enough to counter the perceived value the firm receives. If the benefit to the customer is not perceived as sufficient, customers will view the transaction as unacceptable.

The Survey

An eight-question survey was administered to a convenience sample of travelers at the Statler Hotel in Ithaca, New York, in November and December 1992.

Of the approximately 500 surveys that were left in guest rooms during that time, 118 were returned. Half the distributed surveys dealt with pricing policies in the airline industry, and half dealt with pricing policies in the hotel industry. Of the 118 surveys returned, about half were airline surveys, and half were hotel surveys.

The methodology was based on surveys conducted by other researchers.⁹ The survey questions primarily presented different scenarios. Respondents were asked to rate the scenarios on a seven-point acceptability scale in which 1 was highly acceptable and 7 was highly unacceptable.

Of the 118 respondents, about a third were women, about 60 percent did not pay for their own business travel, and about half traveled an average of one to three days a month. How many of the respondents are “frequent flyers” is unknown.

Role of Information

Information plays a large part in determining what the customer considers to be a reference transaction. A firm can greatly influence the amount and type of information its customers receive, thereby influencing customers’ notions of what is acceptable. Several questions, therefore, were asked so that I could examine the role of information. The first such question dealt with respondents’ reactions when all pricing information is made available:

⁹ See: Thaler; and Kahneman, Knetsch, and Thaler.

An airline or hotel increases its price by 10 percent if a reservation is made three days or less before departure. It has advertised this policy and always informs customers that they can receive a lower rate if they book in advance. Lynn calls five days before departure and receives the lower price. Dana calls two days before departure and is quoted a price 10 percent higher than that received by Lynn.

The practice was considered to be moderately acceptable (the mean was 3.67), but opinions varied greatly (the standard deviation was 2.32). The acceptability differed significantly ($p = .0024$) for the airline and hotel industries. Respondents rated the acceptability of the practice as 3.0 (somewhat positive) for the airline industry and 4.29 (neutral) for the hotel industry.

A similar survey question used the same scenario except that not all pricing information was made available to potential customers:

An airline or hotel increases its price by 10 percent if a reservation is made three days or less before departure. It has not advertised this policy and does not inform customers that they can receive a lower rate if they book in advance. Lynn calls five days before departure and receives the lower price. Dana calls two days before departure and is quoted a price 10 percent higher than that received by Lynn.

This practice was rated fairly unacceptable (mean, 5.72; standard deviation, 1.88). It was rated equally unacceptable in both industries.

Two other questions also addressed the information issue:

An airline or hotel allows its reservation agents to discount prices up to 20 percent off the regular rate. Customers who do not insist on a lower rate receive no discount. If customers push for a lower rate, they receive a 10-percent discount, and if they threaten to use a competitor, they receive a 20-percent discount.

That practice, common in the hotel industry, was rated extremely unacceptable (mean, 6.45; standard deviation, 1.28). Opinions on the issue did not vary significantly between the airline and hotel industries ($p = .176$).

One other question dealt with information availability and its effect on the reference transaction:

An airline or hotel is advertising a special rate reduction, but if customers do not ask for the special rate, they are charged the normal price.

In that situation the firm is making the information known but not taking the additional step of offering it directly to the customer. That practice was rated highly unacceptable (mean, 6.36; standard deviation, 1.40). Respondents felt more strongly about the use of the practice in the airline industry than in the hotel industry (airline mean, 6.72; hotel mean, 6.03; $p = .0054$).

Imposition of Restrictions

When a firm deviates from its reference transaction it must balance the perceived gains and losses to each party. If the balance seems to be tipped in favor of the firm, customers may view the transaction as unfair. If customers perceive the transaction as balanced, they will view it as fair. Finally, if customers perceive that the balance is in their favor, they will view the situation as highly acceptable.

In a yield-management system the firm can choose to give customers a benefit, but in return for that benefit, it may apply restrictions. How large a benefit should the firm give, and what restrictions are acceptable?

Three questions dealt with the issues of restrictions and benefits. Two of the questions tested the impact of different restrictions, and one question tested the value of one type of benefit. Respondents were asked to rate the acceptability.

Benefits and penalties. Two questions covered the imposition of cancellation penalties. One question dealt with a 50-percent penalty:

An airline or hotel charges a 50-percent penalty for cancellations. In exchange for imposing this policy, it may choose to extend no benefit to its customers or it may offer a benefit. Please rate each of the following: no benefit, rate reduction of 20 percent, additional 1,000 frequent-flyer miles or free breakfast, class or room upgrade, rate reduction of 20 percent on next purchase.

Respondents rated the no-benefit option as extremely unacceptable (mean, 6.36; standard deviation, 1.52). The firm benefited from the transaction, but the customers did not. The practice was viewed as less acceptable in the airline industry than in the hotel industry (airline mean, 6.72; hotel mean, 6.04).

Respondents rated the option of a 20-percent rate reduction as moderately acceptable (mean, 4.20; standard deviation, 2.30), with no significant difference between industries (airline mean, 4.28; hotel mean, 4.12). Customers received a benefit in return for the restriction.

The benefit of additional frequent-flyer miles or a free breakfast was not a hard-cash benefit, but it did offer customers something in return for the restriction. It was rated moderately unacceptable (mean, 4.94; standard deviation, 2.07), indicating that respondents did not view it as sufficient. The rating did not vary significantly by industry (airline mean, 5.10; hotel mean, 4.80).

Similarly, respondents did not view the provision of a class upgrade or room upgrade as an acceptable tradeoff for the 50-percent cancellation penalty (mean, 4.95; standard deviation, 2.09). The rating did not vary significantly by industry (airline mean, 4.91; hotel mean, 4.98).

The benefit of a rate reduction of 20 percent on the next purchase was viewed as moderately acceptable (mean, 4.25; standard deviation, 2.35), and it did not vary significantly from the immediate 20 percent off. The rating did not vary by industry (airline mean, 4.31; hotel mean, 4.20).

Benefits and no-refund policies. Respondents were also asked to assess the same benefits in return for a no-refund policy on cancellations:

An airline or hotel has a no-refund policy for cancellations. In exchange for imposing this policy, it may choose to extend no benefit to its customers or it may offer a benefit. Please rate each of the following: no benefit, rate reduction of 20 percent, additional 1,000 frequent-flyer miles or free breakfast, class or room upgrade, rate reduction of 20 percent on next purchase.

Again, respondents viewed the provision of no benefit as highly unacceptable (mean, 6.46;

standard deviation, 1.48), and it was even less acceptable for airlines than hotels (airline mean, 6.92; hotel mean, 6.05).

The option of a rate reduction of 20 percent was viewed as moderately unacceptable (mean, 4.75; standard deviation, 2.24), indicating that the respondents did not see it as quite enough in return for the no-refund policy. The benefit was viewed similarly for both industries (airline mean, 4.89; hotel mean, 4.63).

The benefit of additional frequent-flyer miles or a free breakfast was viewed as unacceptable (mean, 5.29; standard deviation, 2.11), indicating that the respondents wanted more in return. Attitudes did not vary by industry (airline mean, 5.57; hotel mean, 5.03).

The benefit of a class or room upgrade was rated almost the same as the previous benefit (mean, 5.29; standard deviation, 2.07). The rating did not vary by industry (airline mean, 5.49; hotel mean, 5.10).

The benefit of a rate reduction of 20 percent on the next purchase was viewed as moderately unacceptable (mean, 4.86; standard deviation, 2.21). It was rated the same as the immediate 20-percent off. The attitude was similar for both industries (airline mean, 4.98; hotel mean, 4.75).

Benefits and restrictions. We then turned the question around and asked about restrictions in return for a 30-percent-off benefit:

An airline or hotel charges 30 percent less for reservations made 28 days in advance. In exchange for this discount, it may impose a penalty. Please rate each of the following: no refund, 50-percent refund, no refund but can reserve for another date, and no refund but can reserve for another date subject to one of these restrictions: required stay over a weekend day, minimum stay of three days, maximum stay of seven days.

Respondents rated the no-refund option as unacceptable (mean, 5.98; standard deviation, 1.75). It was seen as too large a restriction for the 30-percent off. The rating did not vary significantly by industry (airline mean, 5.94; hotel mean, 6.02).

The 50-percent refund was viewed as a fairly acceptable restriction in exchange for the 30-percent-off benefit (mean, 4.36; standard deviation,

tion, 2.00) and did not vary by industry (airline mean, 4.55; hotel mean, 4.20).

The option of no refund but can reserve for another date was rated moderately acceptable (mean, 3.36; standard deviation, 2.23). It was significantly more acceptable in the airline industry than in the hotel industry (airline mean, 2.32; hotel mean, 4.29).

The additional restriction in the scenario of no refund but can reserve for another date subject to restrictions was associated with a reduction in acceptability (mean, 4.27; standard deviation, 2.19). Again, it was more acceptable in the airline industry than in the hotel industry (airline mean, 3.44; hotel mean, 5.02).

The restriction of a required stay over a weekend day, a common airline practice, was rated moderately unacceptable (mean, 4.75; standard deviation, 2.08). It was more acceptable in the airline industry than in the hotel industry (airline mean, 4.10; hotel mean, 5.33).

The restriction of a minimum stay of three days was rated moderately unacceptable (mean, 4.70; standard deviation, 2.26), and it was more acceptable for airlines than hotels (airline mean, 4.17; hotel mean, 5.17).

The restriction of a maximum stay of seven days was rated unacceptable (mean, 5.49; standard deviation, 1.999). The opinion did not vary by industry (airline mean, 5.31; hotel mean, 5.66).

Perceived Differences

The final question asked the respondents to evaluate one of these scenarios:

- (1) Two airline passengers who are sitting next to one another have a conversation on board their flight. It seems that Glen's ticket cost \$500, but Pat paid only \$400. Pat made a reservation 30 days before arrival, and Glen made a reservation the day before.
- (2) Two hotel guests have a conversation in the restaurant. Their rooms are identical and next to one another. It seems that Glen paid \$100 for a room, but Pat paid only \$80. Pat made a reservation 30 days before arrival, and Glen made a reservation the day before.

The situation was rated moderately acceptable (mean, 3.30; standard deviation, 2.23). Respon-

dents considered it more acceptable in the airline industry than in the hotel industry (airline mean, 2.78; hotel mean, 3.66).

Discussion

When the terms of the actual transaction deviate from the reference transaction, customer opinion on the acceptability of the transaction may change. For example, if the associated benefits or restrictions change, or if customer knowledge of the transaction is altered, the opinion on the acceptability of a transaction may change.

Customers accept yield-management practices when dealing with airlines because they have been exposed to them. They may not view the practices as just, but they view them as usual.

Customers view deviations from the reference transactions in the airline and hotel industries differently. One reason for the difference may be the level of customer experience. Customers accept yield-management practices when dealing with airlines because they have been exposed to them. They may not view the practices as just, but they view them as usual.

In particular, practices such as advertising and charging different prices or imposing certain restrictions on discounted reservations are not viewed as particularly unfair in the airline industry, but may be seen as unfair in the hotel industry.

Some of the differences may be due to the differences between the two industries. The airline industry has a small number of competitors, while the hotel industry is very competitive. Also, the typical price paid for an airline seat is much higher than that paid for a hotel room (although not necessarily so for an entire hotel stay) and you can't change seats from one airline to another mid-flight.

Advice to the Hotel Industry

Certain yield-management practices are more acceptable than others. To succeed with yield management, a hotel has to concentrate on the acceptable practices and avoid the unacceptable ones.

Perceived Fairness of Yield Management— An Update

BY SHERYL E. KIMES
AND BREFFNI M. NOONE

Since the survey described in the accompanying article was conducted more than eight years ago, we decided to see whether attitudes toward variable pricing had changed. We used an abbreviated version of the survey (no questions on rate fences were asked) and administered it at Cornell University's Statler Hotel in the fall of 2001. As with the earlier research, half of the surveys contained questions related to airlines and the other half consisted of the same questions reworded to fit the context of hotel operations. The surveys were left in guest rooms, and we received 65 completed surveys (38 airline and 27 hotel). For a full report regarding the updated survey, see the companion article in this issue of *Cornell Quarterly* (pp. 31–37).

Five scenario-based questions and three demographic questions were asked. The results obtained for three of the scenario-based questions (i.e., the acceptability of unadvertised specials, the lack of disclosure of available discounts, and the acceptability of two people paying different prices) were similar to those from the 1993 survey. The results of the questions on the acceptability of customers pushing to get a lower rate and the acceptability of full disclosure were significantly more acceptable in 2001 than in 1993 (see Exhibit 1).

In the 1993 survey, respondents found variable pricing to be more acceptable when applied to the airline industry (as compared to its use by hotels). For example, respondents viewed airlines' variable pricing with full disclosure and with unadvertised specials to be acceptable in the airline industry. Other practices were rated similarly for both the airline and hotel industries. In the 2001 survey, there were no significant differences between the acceptability of the practices in the airline and hotel industries. This may indicate that consumers have become accustomed to variable pricing in the hotel industry (see the table below).—S.E.K. and B.M.N.

Differences between airline and hotel responses

Question	1993	2001
1	Airline more acceptable	No difference
2	No difference	No difference
3	Airline more acceptable	No difference
4	No difference	No difference
5	Airline more acceptable	No difference

Acceptable practices. Scenarios that were rated fairly acceptable had one or more of these characteristics: (1) information on the different pricing options was made available, (2) a substantial discount was given in return for cancellation restrictions, (3) reasonable restrictions were imposed in exchange for a discounted rate, and (4) different prices were charged for products perceived to be different. In all cases, there was a deviation from the reference transaction, but respondents viewed the change as acceptable.

First, when a hotel advertises that different prices will be charged based on when people make their reservations, customers view the resulting reference transaction as moderately acceptable, including the reference price. For example, a hotel

can advertise the various rates available and the restrictions or benefits associated with each of the rates.

The terms of the reference transaction have been deviated from in that the rules for conducting the transaction have changed, but customers have been informed of the change. Moreover, customers have the option of receiving a benefit: a lower price.

The second acceptable practice is giving a substantial discount in return for cancellation restrictions. By imposing restrictions, the hotel takes away some of the value that customers gain from the transaction and increases the value to the firm. To correct that imbalance, the hotel must offer the guest enough to counter the customer's loss.

EXHIBIT 1

Comparison of 1993 and 2001 responses

Question	1993 Mean (standard deviation)	2001 Mean (standard deviation)
1 An airline (or hotel) increases its price by 10 percent if a reservation is made three days or less before departure (arrival). It has advertised this policy and always informs customers that they can receive a lower rate if they book in advance. Lynn calls five days before departure (arrival) and receives the lower price. Dana calls two days before departure (arrival) and is quoted a price 10 percent higher than that received by Lynn.	3.7 (2.3)	2.9* (2.2)
2 An airline (or hotel) allows its reservation agents to discount tickets (rooms) up to 20 percent off the regular rate. Customers who do not insist on a lower rate receive no discount. If customers push for a lower rate, they receive a 10-percent discount, and if they threaten to use a competitor, they receive a 20-percent discount.	6.5 (1.3)	5.9* (1.9)
3 An airline (or hotel) is advertising a special rate reduction, but if customers do not ask for the special rate, they are charged the normal price.	6.4 (1.4)	6.1 (1.4)
4 An airline (or hotel) increases its price by 10 percent if a reservation is made three days or less before departure (arrival). It has not advertised this policy and does not inform customers that they can receive a lower rate if they book in advance. Lynn calls five days before departure (arrival) and receives the lower price. Dana calls two days before departure (arrival) and is quoted a price 10 percent higher than that received by Lynn.	5.7 (1.8)	5.5 (2.0)
5 Two airline (or hotel) customers who are sitting next to one another have a conversation. It seems that Glen's ticket (room) cost \$500 (\$100), but Pat only paid \$400 (\$80). Pat made a reservation 30 days before departure (arrival), and Glen made a reservation the day before.	3.3 (2.2)	3.1 (2.1)

* Significant at the $p < 0.05$ level.

For example, Marriott offers a substantially lower price for advance purchases.¹⁰ If the benefit to the customer is perceived as sufficient, customers will view the transaction as acceptable.

Third, if a hotel offers customers a discount (a net gain to the customer), it may impose restrictions that will counterbalance the discount. Restrictions that are too strong will upset the balance of the transaction, but acceptable restrictions will create a balance. For example, in this study respondents viewed a broad restriction on

the length of stay as unacceptable (e.g., seven days) but a moderate restriction on the minimum length of stay acceptable (e.g., three days).

Fourth, if a firm differentiates its products so that customers view them as different, it can charge different prices for those products. As opposed to the three previous practices, this practice represents a change in the actual reference transaction instead of a change in the balance of the transaction. The entire way in which customers view the transaction is altered because the product they are purchasing is altered. For example, a hotel may charge higher prices for rooms with a view or for rooms on an upgraded floor.

Unacceptable practices. Yield-management practices viewed as unacceptable included (1)

¹⁰ Richard D. Hanks, Robert G. Cross, and R. Paul Noland, "Discounting in the Hotel Industry: A New Approach," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 33, No. 1 (February 1992), p. 22.

offering insufficient benefits in exchange for restrictions, (2) imposing too severe a restriction on discounts, and (3) not informing customers of changes in the reference transaction. Hotels should avoid those practices.

First, if hotels do not offer sufficient incentives to customers in exchange for the imposition of restrictions, customers are likely to view the practice as unacceptable. For example, in this study respondents did not view a free breakfast or a room upgrade as an acceptable tradeoff for cancellation penalties.

Second, if there is too severe a restriction on discounts, customers will perceive that the firm has tilted the transaction in its favor. For example, if a hotel imposes a nonrefundable, non-changeable restriction on a discounted room, customers may feel that the hotel is taking advantage of them.

If firms change the basis of the reference transaction without informing customers, customers have no way in which to assess the fair-market price. For example, many hotels will offer any customer a lower rate if the customer asks for it. If customers do not know that they can ask for and receive a lower price, they may later view the transaction as unacceptable (should they discover the truth after the fact).

Fairness Is Key

The intent of this research was to discover how customers view yield-management practices in the hotel and airline industries. Many common practices used in the hotel industry were viewed as highly unacceptable by the survey respondents.

If a hotel is to be successful with yield management, it must practice it in such a way that customers view the transactions as fair. If a hotel operates in a manner considered unfair, it risks alienating its customers. While the hotel may receive short-term benefits from yield management, it may find the practice to be unprofitable in the long run.

Hotel managers should concentrate on maintaining the balance of the reference transaction. By using the yield-management practices that consumers find acceptable, managers will increase the probability of a successful yield-management system.

If the hotel industry is to pursue yield-management practices commonly used in the airline industry that are viewed as fairly acceptable, hotel managers need to educate their customers about the practice of yield management in the hotel industry. As customers come to view it as usual, they may become more amenable to its use. ■



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