CHAPTER 6

Customer Reactions to Revenue Management Techniques

Revenue management often involves variations in selling prices among customers or over time. The reaction of customers to these price variations may affect their future behavior. The research outlined in this chapter has shown that behavioral considerations, such as customers' perception of fairness and trust in their supplier, are of critical importance in developing long-term, profitable customers and optimal revenue management strategies. Customers who are satisfied with the current offered price, for example, are more likely to complete the transaction and are likely to consider dealing with the same seller in the future. Customers who are not satisfied with the current offered price may not complete the current transaction or may seek alternative future suppliers. Thus, revenue management involves not only economic considerations in setting prices but also behavioral considerations. How much additional revenue might be generated by a given technique is not the sole question; equally important is, how will current customers (and potential customers) react?

Revenue management is a long-term management activity. The response of customers to today's actions will impact, for better or worse, future revenues. Thus, customer reaction needs to be part of every revenue management analysis.

Perceptions of Fairness

An interesting and critical factor when understanding consumer behavior is a customer's assessment of fairness. Kahneman, Knetsch, and Thaler introduce the notion of fairness into economic decision making.[1]

They observe many common actions that go beyond legal requirements, such as tipping service workers or maintaining a lost-and-found department. Presumably, these behaviors occur because they are perceived as fair, or at least customary, means of acting. Standard economic analysis, however, often focuses on profit-maximizing behavior without regard to behavioral characteristics of either buyers or sellers. These authors emphasize *fairness*, described as not exploiting all legal opportunities for gain.[2] Fairness has implications for revenue management decisions. If certain products are in very high demand due to a natural disaster—snow shovels, bottled water, batteries—should prices be substantially increased to profit from the temporarily high demand? Many would conclude that raising prices in those circumstances would be unfair and exploitative, especially given that the seller's costs did not increase.

Kahneman et al.[3] cite several examples where perceptions of fairness enter into pricing. In one example, an upcoming sporting event has unusually high demand and a limited number of tickets are available. Among three methods of distribution, a survey rated the first-come, first-served method as most fair (68 percent), a lottery as second (28 percent), and an auction (selling to highest bidder) as the least fair (4 percent). The auction, however, would probably maximize the seller's revenues.[4] In another example, a pair of scenarios was given:

1. A small house is rented to a fixed-income tenant but the owner's costs have increased substantially. Should the rent be increased, even though the tenant will be forced to move because the new amount is unaffordable?
2. An employee of a small business earns $15 an hour. Due to the closure of a large nearby plant, equally skilled and reliable workers could now be hired for $12 per hour. Should the pay of the current employee be reduced?

Respondents to these scenarios found the rent increase to be completely fair (39 percent) or at least acceptable (36 percent), but found the pay reduction to be very unfair (49 percent) or somewhat unfair (34 percent).[5] Price increases based on higher costs were deemed fair, but a pay cut due to a greater labor pool from high unemployment was not.

Perceptions of fairness occur not only on the part of the customer but on the part of the seller as well. A common psychology experiment, reported by numerous authors, involves giving a sum of money (say $20) to person A, which is to be shared with anonymous person B. Person A may establish any split desired, and person B then has the right to accept or reject. If B accepts, the money is divided as proposed by A; if B rejects the split, neither party gets anything. Pure economics (self-interest) might suggest that A should keep most of the money, allocating only a small amount to B, and that B is better off getting something rather than nothing. Repeated experiments found that the A players frequently offered nearly equal splits (usually about 60 percent for A and 40 percent for B), and that B players frequently rejected very unbalanced splits, even though they got nothing as a result. Thus, both sides brought a sense of fairness to the transaction.[6]

Fairness in Pricing

There are many dimensions to what customers perceive as *fair* in pricing, some of which may seem to defy economic rationality. Understanding these customer perceptions is helpful in establishing revenue management strategies.

Surcharges, for example, are usually less well received than discounts. A surcharge for paying by a credit card would be perceived negatively where a discount for paying cash would not. A differential could be justified on the grounds that a seller incurs fees on credit card transactions, but customers do not accept that as justification for a surcharge. Presenting the differential as a penalty (surcharge) for using a credit card rather than as a reward (discount) for not doing so adversely impacts the perception.[7]

Coca-Cola once floated the idea of creating vending machines that could adjust the price charged for a cold drink in response to the outdoor temperature, on the grounds that higher demand for a cold drink on a hot day justified a higher price.[8] The idea was widely criticized as extremely unfair and was quickly disavowed.

My wife and I once took a cruise in response to a *two-for-one* promotion by the cruise line. During the course of the cruise, we often interacted

with a couple from Seattle. At some point, we commented that we were motivated to take the cruise—our first—by the two-for-one pricing. Our Seattle friend was upset by this information. He had signed up for the cruise at about the same time, and had specifically asked his travel agent if any special deals were available; moreover, he was a repeat customer of the cruise line. Although he was satisfied with his full-price fare when he signed up for the cruise, he became dissatisfied upon learning that someone else had gotten a much better deal, and was annoyed for the remainder of the cruise. What seemed fair at the time changed to a perception of unfairness once he learned what another customer had paid.[9]

Thus, fairness is often perceived in comparison to what is called a *reference price*.[10] Reference prices may take various forms: posted or list prices, past prices, current competitor prices, expected prices based on advertisements, and so forth. The reference price is what the customer *expects to pay*. Reductions from the reference price are generally well received, whereas amounts in excess of the reference price are generally not. In the forgoing examples, the surcharge for credit card use and the higher price for a cold drink on a hot day were perceived as exceeding the reference, or usual, price. In the cruise example, the customer's reference price changed upon learning what others had been charged.

Trust and Revenue Management Decisions

In addition to fairness, trust is also a dimension of consumer behavior that should be considered when devising and applying revenue management approaches.

Relationship Marketing

The concept of relationship marketing has emerged to signify a strategy for managing and nurturing a company's interactions with actual and potential customers, with the hope that an ongoing buyer–seller relationship will ensue. When customers develop a trusting relationship with their suppliers, a positive outcome is likely for the seller. For example, a buyer may perceive that transaction costs and risk are lower in dealing with the same seller over time. This perception results in a sense of

trust that the supplier is considering the best interests of the customer. McMahon-Beattie, Yeoman, Palmer, and Mudie raise the question of whether the variable pricing inherent in revenue management is consistent with developing trust between buyer and seller. If a seller is offering lower prices to certain buyers, such as new customers, how should a loyal customer respond? Believing that a seller operates in this manner or observing an increasingly complex pricing structure (a frequent result of revenue management) may erode the trust that a buyer has in a supplier. The authors make four recommendations to practitioners of revenue management with regard to trust.[11]

1. Ask if the benefits of flexible pricing outweigh the operational costs and possible reduction of customer trust.
2. Make sure that the bases for flexible pricing are made known.
3. Offer customers ways they can save money by qualifying for lower prices.
4. Do not punish regular, loyal customers by charging them higher prices without providing them some benefit for their loyalty.

Customer trust is important; revenue management techniques can coexist with customer trust, but careful management is needed to ensure that trust is not lost, since there may be significant adverse consequences when this occurs.

Presentation of Prices

How prices are presented to customers has a bearing on customer reaction and behavior. The tendency to use 99 pricing is well known. A price of $3.99 is viewed differently from a price of $4.00, whereas lowering a $3.99 price to $3.91 would probably have little effect. The belief is that buyers focus on the lead digit(s) in the price. This phenomenon applies to high-price items as well; a new car is likely to be advertised at $23,999 rather than $24,000.

As mentioned earlier, presenting a price as a discount or reduction from a normal (reference) price is better received than a surcharge. We observe, however, several exceptions to this norm. Airlines, which compete on the

basis of the posted fare, have in recent years imposed numerous surcharges or extra fees. Fees have been charged for checked baggage, overweight baggage, early boarding, preferred seating, food, pillows and blankets, and other items. Even though customers profess considerable annoyance at all these fees, there is little evidence that they would prefer a higher stated fare and fewer, if any, extra charges. Banks also compete on the basis of free or low-priced services—free checking, no-annual-fee credit cards, and the like. They too have an array of fees—for late payment, overdrafts, exceeding the credit limit, failure to maintain a minimum balance, and the like. In the airline case, most customers will incur some fees, particularly for checked baggage. In the bank case, however, nearly all fees are avoidable by careful management of one's accounts.

Rewards and penalties in pricing operate much the same as discounts and surcharges. When rewards are offered for ongoing patronage—as is common with airlines and hotels—they usually take the form of future benefits rather than current price reductions. Customers pay the same current price as others, but earn credits toward free or reduced-price flights or rooms, or other benefits. It is considered acceptable to offer frequent flier credits, but it would not be well received for an airline to charge a new flier a higher fare. Grocery stores, on the other hand, often have *loyalty card* programs. Cardholders receive a discounted price but noncardholders do not. However, anyone can get a card simply by applying; prior patronage is not required. The *loyalty* in a loyalty card program is relatively meaningless, as all cardholders are treated equally.

Health clubs were once known for charging high initial fees for an annual membership. Their revenue model was to sign up as many new customers as possible, recognizing that usage would tend to drop off after a few months of initial enthusiasm, and many memberships would not be renewed. Many clubs following this model tended not to survive very long, as the supply of new customers dwindled. More recently, a new model emerged: modest signup fees (often under $50) and low monthly fees (often under $20). The monthly fee is automatically charged to the customer's credit card, and the customer may cancel at any time. This approach appears to be a more successful revenue model, as the initial commitment is much less, and there is no major renewal decision. Even though usage may continue to be sporadic after the period of initial

enthusiasm, inertia and the low monthly fee cause many customers to passively maintain the membership.

In some cases, the best means for presenting price is not clear. Consider a bank offering home equity loans. It could quote its annual percentage rate for the loan, or the monthly payment. Assume that competitors are offering a 6 percent rate, and a particular bank decides to promote a 5.25 percent rate. On a five-year, $25,000 loan, the monthly payment would fall by only 1.6 percent, from $483.32 to $474.65, while the quoted rate fell by 12.5 percent. The rate would be a more appealing price to advertise, although the monthly payment may be more relevant to the customer's decision.

Expectations of Price

Customers base their reference prices in part on past behavior. Businesses that seem to always have a *sale*—auto dealers, furniture and appliance stores, and the clothing department of many department stores—may condition their customers to always expect a sale, and to defer their purchases until a sale occurs. Stores that follow a consistent *everyday-low-price* approach are much less subject to this behavior. Sears once observed that most of their appliance business occurred during sales. They tried to convert to an everyday low price approach but were not successful in doing so. Customers continued to believe that a sale was coming soon and deferred purchases in anticipation. Sears soon reverted to its former system, validating customer expectations. In 2011, automakers adopted a *fresh marketing strategy* for 2011 models: lower sticker prices.[12] There is little evidence that this worked; the industry continues to rely heavily on rebates and low-cost financing in selling cars. Customer expectations concerning the firm's pricing behavior are important, and once established, they are not easily changed.

Acceptable Price Discrimination

The earlier examples—credit card surcharges, higher soft drink pricing on hot days, and cruise pricing—were cases in which pricing differences were generally deemed inappropriate. There are, however, many forms of price

discrimination that are considered generally acceptable. Perhaps the most common one is the senior citizen discount (which I have come to appreciate), though there is little economic justification for this differential, nor is it evident that it enhances revenue. A senior discount for the same product or service offered to others is distinct from a restaurant's senior menu, for example, which offers smaller servings that are perhaps better suited to a senior's smaller appetite. Discounts for goods or services sold to members of an organization are also widely accepted. Many businesses offer discounts to AAA or AARP members.

Public colleges and universities charge lower tuition fees for in-state students than for out-of-state students. This differential is justified on the grounds that in-state students, or their families, also support the institution through their state taxes. In many cases, the tuition differential may not be great enough; some state taxpayer subsidy of out-of-state students still occurs.

Children often are charged lower prices for meals, transportation, and admissions to entertainment events than adults. This difference is in part justified in that children may consume fewer goods and services. It likely enhances revenue in that it encourages families to patronize the business, which they may not do if every member had to pay full price.

Bars sometimes offer *ladies' night* where females get drinks at reduced prices. Although gender discrimination is usually frowned upon, this promotion is often considered benign and revenue positive, in that (a) many females are not heavy drinkers and (b) the likely presence of (especially unattached) females is likely to considerably enhance male patronage.

Dimensions of Fairness in Pricing

Differential pricing is based on many characteristics, but there are some general principles of fairness, as suggested by Phillips.[13]

- Price differences that are product or service based are more acceptable than differences that are customer based. We do, however, observe numerous instances of customer-based price differentials.

- Discounts, promotions, and rewards are better received than surcharges or penalties. Although this behavior is common, we do observe some cases where fees and surcharges are used.
- Availability of the price to the individual. Lower prices based on factors such as advance booking or timing of the service are conceivably available to anyone, whereas lower prices based on age (child or senior discounts) are not. If customers could have taken advantage of the lower price but chose not to meet the conditions, they are more likely to think it fair than if it was not available to them at all.
- Simple, open, easy-to-understand pricing is preferred to complex, unusual, and hidden price structures. Lawyers, for example, often charge a rate per hour; although the structure is simple, the process for timekeeping may not be well understood. Similarly, pricing of medical services is often perceived as complex and hidden.

An additional dimension of fairness, especially with regard to price *changes*, is known as the *principle of dual entitlement*.[14] Buyers are entitled to a *reasonable* price, and sellers are entitled to a *reasonable* profit. Although luxury goods—artwork, jewelry, sports cars, and the like—may carry very high prices, items that are closer to necessities should be priced *fairly*. Raising prices in response to cost increases is fair, but raising prices in times of supply shortage or temporarily high demand, such as a storm, is not.

Bolton, Warlop, and Alba conducted several experiments on consumer perceptions of the fairness or unfairness of pricing.[15] They concluded that a general lack of consumer knowledge of prices, costs, and profits led to perceptions that prices, or price changes, were unfair. Consumers tended to regularly underestimate the price effects of inflation over time. They attribute price differentials between store types—such as full-service department stores versus discount stores—to profit differences rather than cost differences. They also tended to underestimate the levels of costs beyond those of the product itself—the overhead, selling, administrative, and other costs of doing business. Finally, they tended to substantially overestimate profit margins, often attributing profit percentages in the

20 to 30 percent range, even for retailers such as grocery stores, which in fact typically earn low-single-digit profit margins. As a result, consumers usually feel that prices should be considerably lower than they are. The consistent underestimation of costs and overestimation of profitability poses a major problem to revenue management, as customers tend to feel that most prices are too high.

Research on Fairness of Revenue Management

Many authors have studied the reaction of customers to the variable pricing techniques commonly employed in revenue management. Kimes and Wirtz examined this question in the golf industry.[16] Arrival time controls in the form of requiring tee time reservations and charging for no-shows were deemed fair, as was time-of-day pricing. Basing the price on when the reservation was booked (higher fees for bookings longer in advance) was viewed negatively, as was varying price according to short-term demand fluctuations. When variable prices were invoked, discounts were viewed more positively than surcharges.

Shoemaker studied the relationship of customer loyalty to pricing practices in the hotel industry.[17] The importance of loyalty varies from industry to industry. For airlines, customer choice may be limited since only one or two airlines may service the route the customer desires, making loyalty to a particular airline a minor factor in the purchase. There are typically many hotels serving a customer's destination, however, and thus, loyalty to a particular brand may be a much more important factor in the choice. Charging a higher-than-normal rate for a high-demand time might alienate the loyal customer, causing them to switch both current and future business to a competitor. Many hotels use loyalty-card systems to help identify regular customers. If this information is entered early in the reservation process, pricing could be adjusted to reflect the customer's history and frequency of patronage.

Shoemaker also reports on an experiment in framing.[18] Customers booking a hotel room in Las Vegas were presented with one of two options. Option A offered a room for $159, with a $30 upgrade providing a room on a high floor with a good view of the Las Vegas Strip; Option B offered the high floor room with the view for $189, or a room

anywhere else in the hotel for $30 less. Thus, one option involved a surcharge for a *better* room, while the other offered a discount for forgoing the view. Consistent with the notion that discounts are better received than surcharges, the hotel found that only 13.6 percent of those offered Option A chose to upgrade to the higher priced room, but 20.6 percent of those offered Option B opted for the higher priced room. Quoting the higher price with the possibility of a discount generated about $30,000 per month more in room revenue than quoting a lower price with the extra cost upgrade. Option B was perceived as the hotel looking out for the guest's best interests by offering the best room with the opportunity to downgrade and save money.

Summary

This chapter has highlighted the importance of behavioral considerations when developing revenue management strategies. Research demonstrates the importance of considering the impact of revenue management approaches on a customers' perception of fairness and their trust in the supplier. These behavioral considerations are important to developing long-term profitable customers.