CHAPTER 5

Revenue Management Techniques

Companies seeking to manage their revenue function may use a variety of techniques to accomplish their goal of increased revenue with sustainable profit improvement. This chapter discusses several of these approaches:

- Sale or promotional pricing (discounting)
- Price matching
- Markdowns
- Unlimited-use pricing
- Overbooking
- Bundling and unbundling
- Free as a price
- Customer reward programs

Sale or Promotional Pricing (or Discounting)

Discounting is probably the most widely used revenue management technique. In general, a discount is a temporary price reduction available to all customers. Sometimes called a *sale* or a *special promotion*, discounting seeks to stimulate demand for a period of time. At the end of the discount period, prices will return to their normal levels. This characteristic distinguishes a *discount* from a *markdown*, which is discussed later.

A discount is generally available to all customers during the discount period. Customer-based pricing, discussed in the preceding chapter, limits the price reduction to certain customers or customer classes (e.g., a senior discount), although the term *discount* is used in this context as well. Further, while discounting is generally a limited-time practice, customer-based prices such as senior discounts tend to be permanent.

The remainder of this section discusses discounting in the context of temporary price reductions available to all customers.

In retail, a sale or promotion—such as *buy one, get one free*—is a limited-time price reduction. It may be used to stimulate demand during slow periods, such as postholiday sales or the once-common *January white sales* for dry goods. One key to success for this technique is infrequency; businesses that seem to always have a sale, train their customers that the sale price is the normal price. That may indeed be the company's intent, and it uses sales simply as an advertising technique. But if a company expects to sell its products at normal prices during nonsale times, it cannot have sales too frequently. Sears' appliance business suffered from this problem. If customers didn't need to purchase an appliance today, they knew that a sale would be forthcoming and thus they should wait—usually only a few weeks—to make their purchase. Sears recognized this impact and attempted to switch to an *everyday low price* format. The attempt was unsuccessful because Sears had trained its customers too well to wait for a sale. The automobile business, in recent years, has fallen into this same pattern, with a succession of rebates, low-cost financing, and other incentives. A given promotion may expire at the end of the current month, but customers know that another promotion will occur next month. Thus, the danger to be avoided with sale pricing is the destruction of regular-price business. Sales should be infrequent and of relatively short duration, ideally to stimulate demand during normally slow times, lest the sale price become the regular price.

Some retailers, such as Walmart and *dollar stores*, successfully avoid the dangers of sale pricing by rigorous adherence to an everyday-low-pricing strategy. Price reductions designated as *rollbacks* may occur, but they are not positioned as limited-time sales. Few businesses have the discipline to successfully maintain an everyday-low-price strategy. Businesses such as Sears and JC Penney that have tried to change from a discounting strategy to an everyday-low-price strategy have generally not been successful.

Some discounts are offered for very brief time periods but on a regular basis, at times when there is low demand. Examples include early-bird specials at a restaurant, happy hour at a bar, weekend rates at a downtown hotel, or matinee pricing at a theater. The goal here is to shift some demand from high-utilization times (when demand may exceed capacity)

to low-utilization times, or to increase total demand by appealing to price-sensitive customers who would not patronize the establishment at regular prices. To be financially viable, such promotions must cover marginal costs and not excessively cannibalize full-price business.

Not all discounting occurs during times of low demand. *Black Friday* (the day after Thanksgiving in the United States) is a notoriously busy shopping day; yet many retailers offer seemingly substantial discounts to lure shoppers to their establishments. However, one study has suggested that Black Friday discounts are more apparent than real. Retailers and suppliers work together to plan pricing and discounts that will still yield desired profit margins. The study of 31 major retailers found that, between 2009 and 2012, 63 percent more discount deals were offered, and average discounts increased from 25 percent to 36 percent, but gross margins stayed constant at 27.9 percent.[1]

In businesses where price negotiation between buyers and sellers is common, discounting is a frequent, though not necessarily productive, technique. In this context, though a discount is potentially available to all buyers, the amount varies according to the buyer's negotiating skill and the seller's desperation to make a sale. Discounting begins from an initially quoted price and moves lower, sometimes aided by the buyer playing one competitor against another. Discounting is often a losing game for the seller, as frequent bidding wars lead to a *death spiral* situation where all sellers lose (though buyers win) and prices may be continuously too low to be profitable. One author argues that "if all you talk about with customers is price, there is no price that is going to be low enough."[2] Discounting tends to be a poor way of building revenue growth because profits may disappear as a result.

The profit impact of discounting depends heavily on the firm's cost structure. Consider two firms, whose current situations are shown in Table 5.1.

Each firm believes that a 10 percent price reduction will increase sales volume by 18 percent. If the price reduction is implemented and the expected sales growth occurs, the new profit levels would be those shown in Table 5.2.

As can be seen, the price reduction benefited firm 1, whose high operating leverage generated a positive return from the added sales; profits

Table 5.1 Initial profit data for two firms

	Firm 1 ($)	Firm 2 ($)
Revenues (each selling 10,000 units at $10 each)	100,000	100,000
Variable costs ($2 per unit for firm 1, and $7 per unit for firm 2)	(20,000)	(70,000)
Fixed costs	(70,000)	(20,000)
Profit	10,000	10,000

Table 5.2 Profits after discounting

	Firm 1 ($)	Firm 2 ($)
Revenues (each selling 11,800 units at $9 each)	106,200	106,200
Variable costs ($2 per unit for firm 1, and $7 per unit for firm 2)	(23,600)	(82,600)
Fixed costs	(70,000)	(20,000)
Profit	12,600	3,600

increased by over 25 percent. The opposite held for firm 2, where the increased sales were not enough to overcome the sizable reduction in its contribution margin, and profits fell by nearly two-thirds. This simple illustration shows that, although discounting may increase sales, analysis is needed to see if that increase is likely to be both sustainable and profitable.

Price Matching

Some businesses employ a selective form of discounting known as *price matching*. The business offers to meet competitive prices, usually with conditions attached. Conditions may include the price being for the *same product* and offered by a competitor within a specified geographical distance. Prior sales are generally excluded. However, application is difficult and sometimes arbitrary. Determining that the item in question is the *same product* may be difficult, as some retailers carry exclusive versions. This is especially true for electronic goods, where model numbers for apparently identical products may vary from one retailer to another.[3]

Sometimes, the offer of price matching carries problems for a retailer. In one reported instance, Dollar General advertised a $9.50 sale price

for *all counts and sizes* of a brand-name diaper. The products come in about 40 different packages of diaper sizes and counts. Dollar General carried only smaller-count packages, and its discount amounted to about $0.50 per pack. But the ad said *all counts and sizes*; so shoppers went to retailers who promised to match competitor prices, such as Wal-Mart, Target, and Toys 'R' Us, and asked to have the price matched on the much larger packages they carried. On large packages, the $9.50 price involved a discount of $20 or more. News of this opportunity spread quickly via social media. After a few days, the large retailers stopped honoring the price match. This, in turn, caused a good deal of customer unhappiness and complaint.[4]

Price matching is a difficult strategy to implement successfully. As the above anecdote illustrates, the need to exactly match the competitor's offer may cause dissatisfaction when customers' matching requests are not honored. Further, decisions to honor or not honor a competitor price tend to slow down customers checkout lines. Price matching may have more pitfalls than benefits as a revenue management technique.

Third-party price matching also exists. Some credit card companies offer *price protection*, refunding the difference if a customer buys an item and later finds it cheaper. Numerous limitations and conditions typically exist, such as a dollar maximum, the exclusion of certain purchases, time limits, and requirements for documentation. It seems likely that successful claims are rare.

Markdowns

Unlike the temporary price reductions of sales or promotions, markdowns represent permanent reductions in the price of the affected goods. Markdowns are most commonly used for holiday-related items after the holiday is past, for end-of-season apparel and other items, and for end-of-model-year items, such as automobiles. The stock of items available at markdown prices is limited and will not be replenished.

Some retailers, however, employ markdowns as an ongoing pricing technique, reducing the price if the merchandise has been on hand beyond a certain time. The key revenue management decisions include how much to reduce the price and how soon to do it. Markdowns exist

in a wide range of products. Houses on the resale market are typically reduced in asking price if, after some time, they have not sold at the originally listed price. Supermarkets reduce day-old baked goods as well as other soon-to-expire merchandise. Style goods are often marked down fairly quickly. If a particular style doesn't sell well initially, it is not likely to sell well later; the price is reduced, sometimes in steps, to move the merchandise. Markdowns have grown over time. A somewhat-dated study reported that markdowns represented 6.1 percent of department store sales in 1965, 8.9 percent in 1975, and 18 percent in 1984; by the mid-1990s, only 20 percent of the merchandise in a typical department store was sold at full price.[5] Markdowns are not limited to department stores; looking across the retail spectrum—clothing, electronics, toys, and the like—marked-down goods represented 33 percent of sales in 2001.[6]

Markdowns are an established revenue management strategy, though not always by that name. The earliest applications of revenue management by airlines and hotels were essentially markdowns (and sometimes markups) to fill available seats or rooms before they *perished*. Even in cases where prices are commonly subject to negotiation, as in automobiles and houses, the asking price initially attracts or repels potential customers. Thus, markdowns to the asking price, as in the house on the market for some time, may bring new potential buyers to the seller.

Unlimited Use (All-You-Can-Eat) Pricing

This strategy involves offering a product or service in unlimited quantity, typically over a fixed time period. Although we may think of this strategy primarily in the context of restaurants, this pricing type is employed by many businesses, for varying reasons:

- Transportation providers may offer a one-price, unlimited-use pass. Bus and rail companies routinely offer such passes as a convenience and inducement to regular riders. Occasionally, airlines offer a limited-time, all-you-can-fly price, usually to build additional demand during normally slow times. A few years ago, JetBlue Airways offered a one-month pass at two prices: $699 to fly on any available flight between

September 7 and October 6, or $499 to fly any day but Friday or Sunday.[7] Whether offering an unlimited-use pass is an effective revenue management strategy depends on whether it attracts new business, or simply causes passengers who had already planned multiple trips in that time frame to switch to a cheaper option. One cash flow advantage is that such passes are typically bought and paid for further in advance of usage than normal airline tickets.

- Theme parks, museums, sports teams, and other attractions often offer a season pass in lieu of individually charged admissions. Again, the season pass is intended as a convenience and inducement to regular attendees. Having a base of season customers may serve to reduce marketing costs and provide earlier cash flow. Where ancillary revenues are important, such as concessions at a sporting event, they may offset lower admission prices. Furthermore, having an annual pass may cause holders to attend more frequently than if they were to purchase individual admissions. Disney World, for example, currently (2014) offers daily adult admission for $99 and an annual pass for $634. Florida residents may buy annual passes at prices ranging from $190.64 to $644.33, depending on what is included (parking, weekdays only, after 4:00 p.m. only, etc.). These reduced prices might encourage Florida residents to frequent the parks for shopping or dining, sources of significant ancillary revenues. They might also encourage residents to bring their out-of-town guests to Disney World.
- Telephone, Internet, and cable providers commonly charge a fixed price for unlimited service, perhaps primarily for billing convenience and to avoid the cost of monitoring usage (which in some cases may not even be possible). This approach to pricing ensures a steady revenue stream even if utilization declines, with the option of increasing the price if utilization increases.

Analysis of such pricing schemes is difficult because the degree of expected utilization is unknown. Generally, this type of pricing would

be found in businesses with high fixed costs and a fair amount of excess capacity.

Unlimited use pricing sometimes leads to abuse by customers. Some wireless and Internet providers find excessive downloading of high-volume content by some customers, necessitating limits on *unlimited* use.

Overbooking

Businesses that operate by advance reservation recognize that some reservations will not be fulfilled. In the face of sufficient demand, and with a desire to not have unutilized capacity, such businesses may accept more reservations than capacity allows. If the business is successful in estimating the frequency of no-shows, this process enhances revenue with minimal adverse customer effects. If, however, the estimate of no-shows is too high, this practice may become more costly than beneficial. Costs involve both the remedy offered to the customer and the effects of customer unhappiness with not receiving the expected service.

Airlines face the most complex situation. The capacity on a flight is absolutely limited, and an alternative flight may not be available for several hours, sometimes longer. By both company policy and federal regulations, airlines have a protocol to follow in the face of overbooking. Volunteers are first sought who will give up their seat on the flight in question in exchange for a seat on a later flight plus a payment, often in the form of a voucher for a future flight. Customers who have time flexibility sometimes welcome these opportunities. If sufficient volunteers cannot be found, then passengers holding reservations may be involuntarily *bumped* from the flight, again with specified compensation. Not only is the bumping compensation higher than what might be offered to volunteers, the bumping process may result in very unhappy customers, who may choose to patronize a different airline in the future.

Hotels face somewhat less complex situations. Even though a hotel is *full*, it may have a few rooms that have minor service problems or are held for special situations that could be utilized for overbooked customers. A rate reduction, or an upgrade to an unoccupied suite, may minimize customer dissatisfaction. If there is literally no space, the response of the hotel is typically to find the customer a room in a nearby facility, a process

known as *walking*. Even though this solution somewhat inconveniences the customer, it is far less so than the bumped airline passengers who will not reach their destination when desired.

Overbooking by a restaurant may simply involve a longer wait to be seated. Since the duration of restaurant service varies, customers understand that their table may not be ready at the time specified. A modest wait is unlikely to have serious consequences, though a long wait could cause loss of future business.

The concept of *overbooking* is not limited to fixed-capacity service businesses such as those discussed earlier. Any business can *overbook* in the sense of promising customers what it is then unable to deliver. A retailer offering a sale price on an item of merchandise may not have sufficient stock to meet the demand. A common response is the issuance of a *rain check*, enabling the customer to buy the item, at the sale price, when stock is replenished. For some sales, such as extreme discounts for a *Black Friday* sale, the retailer may announce that only a specified number of these items are available per store, and that no rain checks will be given. This announcement puts customers on notice that supply is limited and if they are not at the store very early, they are unlikely to get the sale item. Manufacturers have an overbooking problem if they cannot meet promised delivery dates for the product, as does a contractor who cannot complete a project by its scheduled due date. Some businesses may quote aggressive delivery dates to get the order, but risk customer unhappiness or loss if the dates are not met. Some customers require that contracts provide for a financial penalty if due dates are missed.

In short, overbooking, in whatever form, can be a viable revenue management strategy, provided the cost of customer dissatisfaction is minimized.

Bundling and Unbundling

Deciding whether to price a group of goods and services with a single package price, or to adopt *a la carte* pricing, is a critical decision in revenue management. The most visible example of this issue is the huge increase in add-on fees promulgated by most airlines in recent years. At one time, the ticket price included all services connected to the

flight, with the exception of liquor on board for non-first-class passengers. Then airlines began to price separately a variety of elements of the flying experience, only some of which may be deemed optional choices by the passenger. The following are some of the separate charges that have emerged:

- Change of booking to an alternate flight
- On-board meals
- Checked luggage, and, for a few airlines, carry-on luggage
- Preferred seating (aisle, exit row, etc.)
- Early boarding
- A paper ticket rather than an electronic one
- Restroom access, proposed by at least one airline

Moreover, the addition of these fees was not a case of classic unbundling, where the price of the base service is reduced by pricing some elements separately. Rather, these fees have been add-ons, leaving ticket prices essentially unchanged (though airlines may claim that they permit the *continuation* of low fares). Indeed, industry reports suggest that these fees have added significantly to overall airline revenues. Although passengers actively dislike the practice of both the *nickel and diming* effect of numerous add-ons and the hassle of engaging in multiple transactions, overall passenger loads appear not to have suffered as a result, indicating a high degree of inelasticity for air travel. Some shifting of demand to carriers imposing fewer such fees, however, has been noted. Indeed, despite the negative reactions, the loss-of-business effect may be much less than that if equivalent fare increases were imposed. The apparent price at the time of first commitment may be a bigger factor than the vague knowledge that further fees lie ahead.

Initially, basic services such as luggage, meals, and itinerary changes were unbundled. More recently, added fees have focused on providing *value-added* extras, such as early boarding, more spacious seats, and preferred seating such as aisles and exit rows. Further, after unbundling so many services, some airlines have begun bundling their unbundled charges. American Airlines offered a package of one checked bag, early boarding, and no change fees for $68. Delta Airlines

offered a limited-time $99 subscription of approximately three-month duration for one checked bag, early boarding, exit row seats, and extra frequent-flyer miles on all flights.

The bundling or unbundling decision is present in many lines of business. Examples include the following:

- For automobiles and consumer durable goods, some warranty coverage may be included as part of the product price, and some may be offered for sale separately as extended warranty coverage.
- Customers may buy a service contract for an appliance or buy service as needed.
- Vacationers may buy all-inclusive packages or buy each component (air, hotel, rental car, and perhaps meals) separately.

Some industries have moved away from unbundling. At one time, purchase of an automobile involved numerous choices of options; now most features are standard, and there are few options beyond color and upholstery. To some extent, availability of options has been replaced by expansion of the product line. Automobiles, computers and peripherals, and other big-ticket items have seen a proliferation of models. Rather than being able to customize a model, multiple precustomized models are offered.

Free as a Price

As unlikely as it may sound, a price of zero is a valid revenue management technique, and one that is increasingly common. We take for granted all kinds of free information on the Internet, ranging from news to sports to recipes to medical information. We use free search engines to find all sorts of references in an instant. We interact via free e-mail and social media sites. Yet, somehow businesses are making money around all these free services. One author calls this outcome the *paradox of free*: "People are making lots of money charging nothing. Not nothing for everything, but nothing for enough that we have essentially created an economy as big as a good-sized country around the price of $0.00."[8]

The exceptionally low costs of electronic distribution underlie much of the free phenomenon, although the concept has been around for many years. When the creators of JELL-O® considered how to create demand for this new version of a somewhat-icky animal-processing by-product, they widely distributed free recipes to give people ideas on how to use it. Gillette used a near-free technique, selling its safety razors for very low prices and making its money on the subsequent sale of razor blades. This same technique is currently used by producers of video games, cellular telephones, and specialty coffee makers. Some printer and copier manufacturers offer very inexpensive printer–copier–fax machines. Once the customer purchases the machine, ongoing purchases of high-margin ink and toner cartridges are expected to follow. And, of course, radio and television broadcasts (in pre-cable days) were free to anyone who had the receiving equipment; third-party advertising paid the costs. These 20th-century examples of free were relatively few and far between. Twenty-first-century free is largely built around the economics of delivery via the Internet, where the component costs—processors, storage, and bandwidth—have been steadily decreasing, enabling the amount of free information to be steadily increasing.[9]

Pseudo-Free

The word *free* is widely used to attract customers, but many uses are free in name only. *Buy one, get one free* is equivalent to a 50 percent price reduction; *free with purchase*, *free gift inside*, and *free shipping* all have their costs somehow incorporated into the price of the paid product. Free trials and free samples are truly free but have the expectation that paid purchases will follow from some percentage of the free recipients. These are not the modern meaning of a price of *free*.

Variations of Free Price

Anderson points out that all types of *free* involve cross-subsidies of one kind or another: Paid products subsidize free products, paying customers subsidize free customers, or paying later subsidizes free now.[10] There are four variations of free goods and services.[11]

Three-Party Markets

This arrangement is perhaps the oldest form of free, common in many media markets. Radio broadcasts have long been free to all, paid for by advertisers. This was also true of television broadcasts in pre-cable days. Even with cable, most broadcasts are still *free*, given that one has the now-more-complex receiving capability. Some newspapers and magazines are free, entirely supported by advertising, whereas others charge relatively nominal prices. To a great extent, online information and media content is free. In most cases, search engines that process, organize, and provide the extensive amount of online information are provided without a direct charge to the user.

Direct Cross-Subsidy by the Provider

Something is provided free, in the hopes of gaining revenues from the customer in other ways. Banks provide free credit cards, making money from interest charges on carried balances, late and over-limit fees, and also from fees on merchants. Restaurants and bars offer free music or other entertainment to attract customers for food and drink purchases. Retailers offer a free item to induce customers to come into the store, where they may purchase other items. Entertainment providers may offer free admission to children, which will generate paid admissions by parents. Luxury automobile dealers offer free scheduled maintenance. Any seller who offers a range of products and services can offer something free to promote the sale of other offerings.

Basic Version Free, Buy Upgrades

An expansion of the free-sample model, this version of free, sometimes called a *freemium*, offers a basic service, such as an e-mail account or a simple version of software, free to all users, while also offering upgraded versions for sale. The unusual economies of the computer or Internet world make for near-zero marginal costs; if a small percentage of users purchase upgrades, they profitably subsidize the many free users.

The freemium model has expanded into many areas. Skype provides free computer-to-computer calls, but charges for computer-to-phone

calls. Many newspapers and magazines provide free web content, while charging for print content. Many *apps* for mobile phones, especially games, are free but one can buy game currency for a price.

The freemium model can be successful if one has a good-quality free product that customers want. This product needs wide distribution, as only a small percentage of the free users will buy the nonfree content. Digital distribution works best, as it keeps the cost of producing and distributing the free content to a minimum. Thus, the model is to generate wide use of the free product and profit from sales to a very small percentage of this large group.

Other Nonmonetary Exchanges

We give away many things, such as used clothing, though many of these examples fall outside the business realm. Blogs offer free commentary from many sources, and Wikipedia has created a free encyclopedia from user inputs. This version of free is the least connected to revenue generation by other means.

The world of *free* has expanded, especially as electronic costs have declined substantially. This expansion enables *free* to be part of the revenue management toolkit of nearly all providers of goods and services.

Customer Reward Programs

Many businesses offer customer reward programs as an inducement for continued patronage. Many customer reward programs are essentially deferred discounts; buying goods and services now earns benefits applicable to future purchases.

Perhaps the best known of the rewards programs are frequent-customer programs of the airlines and hotels. Customers earn points for each flight or hotel stay, redeemable for nearly free future flights or hotel stays and possibly for other merchandise as well. If indeed such programs really do induce continued patronage—a largely untested assumption—airlines and hotels are able to achieve the revenue benefits at relatively low cost. By managing and limiting the availability of frequent-flier seats, airlines attempt to minimize the displacement of a fare-paying passenger

by a free rider. Hotels are usually less restrictive regarding customers' use of accumulated points. Further, many airlines sell frequent-flier miles to other businesses, such as hotels and car rental companies, thus generating some immediate cash flow from the program.

Credit card providers are another major user of rewards programs. Formats vary, from earning points redeemable for merchandise to points that may be exchanged for airline frequent-flier credit to cash rebate programs.

Transaction Price Management

As noted earlier, the net revenue, or *pocket price*, from a sale is the critical number to the company. Net revenue may exceed the quoted price of the product or service as a result of additional fees and charges accompanying the transaction. The many fees charged by airlines above the stated ticket price, and the many fees charged by banks to holders of *free* checking accounts, are primary examples of managing the transaction price upward. Other common examples include shipping and handling fees imposed on many Internet or catalog sales, and automatic charges for future upgrades or supplements.

Perhaps more common are situations where the pocket price is below the quoted price. Such adjustments may include discounts for prompt payment, for the size of the current order, or for the annual volume of purchases. Various forms of rebates, incentives, or sales bonuses may be offered. Free shipping may be provided, and customer-specific allowances such as extended payment terms, cooperative advertising, or technical assistance may be given.[12] Each allowance or reduction reduces the pocket price, and the cumulative effect may be significant. Moreover, the authority to grant these various adjustments may be dispersed throughout the organization, and comprehensive reporting of net revenue typically does not occur. These features make the revenue management task more difficult.

In some cases, the net revenue from a given product or service may vary considerably among different customers. As a result, some customers are more expensive to service than others. This topic is explored further in Chapter 11.

Conclusion

This chapter outlines some techniques that can be considered for companies seeking to manage their revenues. A variety of techniques are described that may accomplish the goal of increased revenues coupled with sustainable profit improvement. It is important to note though that successful revenue management requires not only knowledge of and attention to pricing on a broad scale but also familiarity with the net results at the individual customer or transaction level. If revenue management is not carefully and thoughtfully executed, considerable loss of revenue and profits can occur. Similarly, if a well-designed and well-researched technique is utilized that is congruent with the needs and interests of consumers and the market for the product, a substantial increase in revenues and sustainable profits may ensue. Careful consideration and research should precede the adoption of any revenue management strategy and technique, because mistakes can have costly outcomes.