CHAPTER 4

Setting Prices: An Overview

Pricing is at the heart of revenue management. As noted earlier, we have a three-part relationship:

$$\text{Prices} \rightarrow \text{Revenues} \rightarrow \text{Profits}$$

The linkage between prices and revenues is *volume*, the quantity that can be sold at given prices. The linkage between revenues and profits (income) is *expenses*, the costs of generating these revenues. Thus, we have:

$$(\text{Price} \times \text{Volume}) - (\text{Variable Costs} + \text{Fixed Costs}) = \text{Profit}$$

If the price is set *too high*, the contribution margin (price–variable costs) may be good, but will there be enough volume of sales to cover fixed costs and provide a profit? If the price is set *too low*, volume will increase, but will enough revenue (price × volume) be generated to cover all costs and provide a profit?

The revenue management function involves the simultaneous consideration of all three elements: prices, revenues, and profits. Setting prices has become a complex area, one that merits the attention of both top management and financial managers, who are best able to analyze the income effects of pricing. This chapter provides a brief overview of the approaches to setting prices.

Types of Prices

There are two basic types of prices: list prices and quoted prices. *List prices* represent announced prices for a given product or service and are often posted for the customer to see. Most retail operations—grocery stores, department stores, gasoline stations, and the like—utilize list prices.

In many cases, there is no opportunity for negotiation from the posted price; the customer chooses to pay the price, or seek the product elsewhere, or forgo purchasing. In some cases, ranging from automobile dealerships to garage sales, the posted price is merely a starting point; negotiation is common, and the final price is typically below the list price. The nature of the business, and customary practices, usually make it clear if prices are negotiable or not. We expect to negotiate the price of a house with the seller, but we do not negotiate the price of a steak with the butcher.

Quoted prices are developed for each customer situation, often because the product or service is not standardized but varies in some way from customer to customer. Construction, repair work, professional services, and custom-made products commonly involve quoted prices. Quoted prices may take the form of formal bids, proposals, or informally stated prices.

Basis for Pricing

There are several approaches to setting prices. Among the common approaches are cost-based pricing, market-based pricing, and value-based pricing.

Cost-based pricing, sometimes called cost-plus pricing, develops a price from the cost of providing the goods or services, plus an allowance for covering overhead costs and for profits. An essential element of cost-based pricing is knowing the cost of the item being sold. Product costing is notoriously difficult, as it typically involves the allocation of many common costs. Cost determination is easiest in retail businesses, where the product is usually sold in essentially the same form as it is purchased; hence, the purchase cost is a major component of the product's cost. Cost determination is much more difficult in the case of manufactured products or services, as many cost elements are involved, which typically must be divided among numerous offerings. Having reliable costs is a key to successful cost-based pricing. The development of activity-based costing in the 1980s grew out of company concerns that their cost determination methods were not appropriate.

Market-based pricing is based not on one's costs but on the selling prices of others. For commodity goods, accepting the market price is the only choice, as goods are identical and prices are generally well known. In such cases, the seller is said to be a *price taker* rather than a *price setter.* Where product differentiation is minimal (or where one's product is inferior in some way) and there are one or more market leaders, sellers will generally set their prices by reference to prices charged by the leading sellers. Although such products may be priced below the prices of market leaders, there is still considerable room for decision as to how much below the price it should be.

Market-based pricing may be a temporary strategy for a new entrant in a market to build market share. Prices are set below those of competitors to initially attract customers; as the new supplier gains a foothold in the market, it may then be able to command higher prices.

Value-based pricing is based on a determination of what a product or service is worth to the customer. Worth may be a function of benefit to the customer (such as a consulting engagement) or a function of how badly a customer wishes to buy something (such as a collectible or a piece of artwork). As a general approach, pure value-based pricing—where each customer is charged according to the value of the goods or services to that customer—is impossible, as there is no way of knowing the customer's value function.[1] Further, such pricing could have serious problems of customer acceptance, as this practice could be viewed as *price gouging*. In most cases, customers have alternatives, and competitive pressures will limit a seller's ability to extract the full customer value, even if known.

But approximations to value-based pricing are certainly possible. Value-based pricing is applied when a supplier creates premium or inferior versions of a product or service. The premium version is designed to sell at a high price, even though it may have a limited market. The inferior version is designed to sell at a low price to very price-sensitive customers who are willing to accept the limitations that make the product inferior to the normal offering. In between, the standard product is sold at a *normal* price, probably accounting for the majority of sales.

At one time, admission to sporting events involved prices that varied by seat location, but did not vary by opponent or the time of the event. In recent years, some teams have introduced value pricing, setting different prices depending on the day of the week, early season versus late season, and the appeal of the opposing team. The Buffalo Sabres of the National

Hockey League, for example, classify games according to opponent, time of year, day of the week, popular rivalries, and the involvement of famous players.[2] Five value levels are provided: platinum, gold, silver, bronze, and value. For the 41 regular season games for 2014–15, 1 is designated as platinum (against the nearby Toronto Maple Leafs on a Saturday evening), 7 as gold, 14 as silver, 11 as bronze, and 8 as value (mostly weeknight games against the least attractive draws). With 5 value categories and 10 seat classifications, as many as 50 different prices apply for admission. Depending on seat location, prices between the value category and the platinum category range between $122 and $240 for the best seats and between $69 and $160 for the fifth best of 10 seat categories.

Other Pricing Concepts

The preceding section discusses cost, market, or value as a basis for setting prices. Other ways of looking at pricing exist. Holden and Burton, in their book *Pricing with Confidence*, discuss four common pricing strategies:[3]

1. Price to cover costs: In addition to the costing problems just discussed, such prices may be too low (not reflecting customer value) or too high (often because of poor costing or inefficient production).
2. Price to meet the market: *Market* is a collective concept; we sell to customers, not markets, and customers may not behave in a uniform way.
3. Price to close a deal: This approach tends to reduce prices, as customers negotiate for whatever they can, and the sales staff is motivated to respond.
4. Price to gain market share: Employed by firms that are not currently market-share leaders; lowering prices to build market share invites competitors to do the same, reducing revenue for all.

Another strategic view of pricing is the three-way distinction among skimming, neutral, and penetration pricing.[4] These approaches are often linked to the position of the company's product in its life cycle. Skim prices—high prices designed to maximize revenue from the least price-conscious customers—are often used when products are new in the market with little initial competition. New technology items are often priced in this manner, aimed at buyers who are highly motivated to have the latest advances. When Apple introduced the iPhone, it initially carried a relatively high price. It was not long before the price was reduced, to the annoyance of early purchasers. Skim pricing usually has a short life, as competitors enter the market and the initial appeal of the product declines.

Neutral pricing—close to that of the competitors—is usually followed by nonmarket leaders, who will try to compete on dimensions other than price. This pricing approach is also common in stable markets where there is little or no growth, as price reductions are not likely to have much impact on the overall demand.

Penetration pricing—low relative to competition—is often used to build a dominant market position. But as discussed earlier, price is easy for competitors to match, and price-sensitive customers tend to have little loyalty. Penetration pricing works best when the company has built a low-cost operating structure that enables it to be profitable at low-price levels. Southwest Airlines is one example of a company that has followed this approach. Some regional consulting firms have adopted this strategy as well. Regional firms often provide similar consulting expertise to their national counterparts, without the overhead of a national office and facilities in high-profile locations. The low-cost operating structure enables these companies to provide high-end services at midmarket prices.

The Net, or Pocket, Price

Although the nominal, announced price is critical to the customer and may influence the decision to buy or not, the net price after all adjustments is what impacts the seller's revenue. The net result has been referred to as the *pocket price*. We see one example of this concept in the recent action of many airlines, to quote a low fare while enhancing revenue with numerous additional fees; the pocket price may considerably exceed the stated price. Adjustments in the other direction are also possible, as the pocket price declines from the stated price as a result of discounts, rebates, incentives to buyer or retailer, bonus programs, and other adjustments eroding the net revenue.[5] Many times, these adjustments occur at the individual transaction level, rather than as part of broad price setting. We discuss transaction price management in more detail in Chapter 5.

Customer-Based Pricing

One of the key elements of revenue management is to find ways to charge different prices to various customers. The purpose is to expand sales by adding customers (and hence revenue) whose willingness to pay might not lead them to buy the company's goods or services at normal prices. The price to each group should be profitable, at least in excess of the variable cost. As will be discussed in Chapter 7, there are limitations of contribution margin pricing, especially where a significant addition to the volume of business is involved.

One of the key objectives of reducing prices for some customers is to limit infringement on normal-price business. There are three dangers to be considered:

1. Different levels of willingness to pay are the typical foundation of customer-based pricing. But assessing willingness to pay is difficult. For example, senior discounts are common. But among seniors, willingness to pay may vary greatly. At best, a company can segment based on average characteristics of a group.
2. Avoiding migration of normal-price customers into a lower-price category, often called *cannibalization.* Definitions of various customer-price groups, sometimes referred to as *rate fences*, are needed to try to control this danger. At best, any solutions will be imperfect.
3. Discouraging third-party resellers, who might find ways to buy at low prices and resell at somewhat higher prices to those who did not qualify for the lower prices. This process is often called *arbitrage.*

Unless these dangers can be controlled, customer-based pricing has the potential to result in a general lowering of prices for nearly all customers, which usually means a reduction of profitability. There are numerous approaches to customer-based pricing, as described in the following sections.[6]

Customer Groups

A common approach to customer-based pricing is to define one or more groups that qualify for a lower price. Perhaps, the most common group is *senior citizens*; the group may be defined by a minimum age, which varies across establishments from perhaps 55 to 65 years. Alternatively, membership in a senior-related organization, such as the American Association of Retired Persons (now simply known as AARP), may be the qualifier. The assumption, certainly not always valid, is that seniors have lower incomes and a lower willingness to pay.

Other groups that may be offered lower prices include students, members of the military, and clergy. Members of certain organizations, such as the American Automobile Association (AAA) and the aforementioned AARP, may receive special pricing.

At the business level, repeat customers, customers who buy large quantities, or customers that are not-for-profit organizations may qualify for discounts. In these cases, the seller typically establishes criteria for qualifiers.

Discount Times

Rather than extending price reductions to all members of a group, discounted prices may be based on some element of time. *Time* may refer to underutilized portions of the day, week, or year; the seasonal cycle of the product or service; advance commitment; or speed of delivery. The following are some examples:

- *Slow-time pricing*: *Early bird specials* at restaurants, matinee performances for films or shows, weekend rates at business hotels, and off-season rates at resorts.
- *End-of-season pricing*: Closeouts of seasonal merchandise such as clothing, lawn mowers, and outdoor furniture; end-of-model year discounts on automobiles; postholiday sales of holiday-related merchandise.
- *Preseason pricing*: Back-to-school sales, summertime maintenance of heating systems.

- *Advance-purchase pricing*: Early reservation prices for cruises, prepublication prices for a specialty book.
- *Speed-of-delivery pricing*: One-hour dry cleaning, overnight shipping (these would command premium, rather than discount, pricing).

Location-Based Pricing

Prices may vary based on the location where goods and services are offered. Rather than discounts, items may sell at a premium in certain locations. Gifts and souvenirs may be priced higher in an airport shop than in a downtown store. A beer may cost more at a sporting event than at the corner bar. A gallon of milk may cost more in a convenience store than in a supermarket. Many items sell for more in Hawaii than on the mainland.

In some cases, price differentials may be based on the cost of doing business, as some locations are costlier than others. In other cases, higher prices may be extracted from a captive audience that has few alternatives, as in the case of the sporting events and the airport shops just mentioned.

Product Variations

Another strategy to enable price variation among customers is to offer variations of one's product or service, even if the variations are more apparent than real.

Many manufacturers of branded products produce highly similar versions that are sold under private label or as generic brands at a lower price. This practice is perhaps one of the most effective means of adding customers with a lower willingness to pay while largely protecting normal-price business. Highly price-sensitive customers will tend to shop at locations carrying off-brands and generics, whereas less price-sensitive customers will shop at mainstream stores and are likely to continue to buy their familiar brands.

In other cases, all items will carry the brand name but a number of versions will be available. Technology items—computers, peripherals, digital cameras, smartphones, software products, and the like—will have a variety of included features so as to create a range of prices, appealing to both the price-sensitive bare-bones buyer and the buyer who must have the top-of-the-line version, whatever the price. It is likely that production cost variations from the bottom to the top of the line are far less than the price variations. Sometimes model numbers will differ between products offered online and products offered in retail stores, making price comparison difficult.

The opposite of the private-label strategy is the establishment of premium brands at higher prices. One advantage of this approach is that the premium brand might generate higher revenue from prestige-seeking, non-price-sensitive customers. Another advantage is that the existence of a high-priced premium brand may make the normal-priced standard brand seem less expensive and a better buy.

Product variation is probably the most common means of revenue management. Companies create a variety of goods and services to appeal to a wide range of customer desires and willingness to pay. Most customers welcome the variety of choices available to them, while others feel that buying decisions are unduly complicated. When Medicare Part D, the prescription drug benefit, was introduced, so many plans were made available by varying suppliers, each offering slightly different coverage at different prices that consumers (primarily seniors) found it extremely hard to select.

Variation by Distribution Channel

Prices may vary depending on where the transaction is conducted. Goods may be bought at normal retail locations, at outlet stores, via catalog, or online. Often, price differences reflect true cost differences. It is clearly more expensive to operate, staff, and stock retail space than to offer goods over the Internet. Customer service also varies across different types of outlets, so that price-sensitive customers can trade off some degree of service and convenience for lower prices. Customers willing to navigate a sometimes-complex Internet site and ordering process may find lower prices and possibly greater selection than at a local retailer.

Similarly, customers willing to go to a less conveniently located outlet store may find lower prices than those at their local mall. Typically, outlet stores were located in more remote areas, far from a company's full-price stores. Recently, that trend is changing, as outlet stores are appearing in major cities and full-price stores are coming to outlet malls. There is debate as to whether this trend will have positive or negative effects. Proponents suggest that there is little overlap in customer groups between outlet and full-price stores, and that improving access to outlet stores will enhance overall revenues. Opponents suggest that increased proximity will draw customers away from full-price stores and depress overall revenues.[7]

Customer Option

In some cases, price reductions are offered to customers willing to endure minor additional efforts, such as redeeming coupons and submitting rebate claims. Buyers may choose to avail themselves of these reductions or not.

Summary of Customer-Based Pricing

Most companies, in fact, offer customer-based pricing, using one or more of the techniques just described. Finding ways to charge different prices to different customers is easy. The following are the two important questions for successful revenue management:

1. Does the technique used enhance both revenue and profit, especially over the long run?
2. How do customers react—positively or negatively—to the price differences?

We further discuss the first question at the end of this chapter; customer response is addressed in Chapter 6.

Auction-Based Pricing

The emergence of Priceline, eBay, and other online transaction sites has expanded the use of auction-based pricing. Once used primarily for quick disposal of merchandise, often under distress conditions, auctions are now much more widely used. In an auction, the seller accepts the price of the highest bidder, although the seller may set an undisclosed minimum price, known as a *reserve price.* Auction is a form of value pricing, where the competition among potential buyers for a limited supply—often a single item—establishes the value. The success of auction-based pricing depends on achieving broad awareness of the sale and attracting a sufficient number of interested buyers.

Some forms of auction sales, such as those by Priceline, feature the traditional practitioners of revenue management—airlines, hotels, car rental agencies, and the like. The online auction provides another means of filling perishable capacity. Bids are generally not visible to other customers, as they are on eBay, and the reserve price is typically not fixed. This type of auction is intended for use on an ongoing basis, with a continuing supply of products for sale.

Other forms of auction sales, such as those on eBay, are more used for infrequent or one-time sales of small quantities, sometimes a single item. Bids are by necessity visible to other bidders, as they would be in a live auction. Although a live auction continues until only a single bidder remains, online auctions usually have a time limit.

Competitive Bidding

Another form of auction sale, though that term is typically not used, occurs when buyers solicit bids for goods or services. Here the seller, rather than the buyer, makes the bid. In a standard auction, the buyer making the high bid wins; in a competitive bidding auction, the seller making the low bid wins. Many construction contracts are awarded on a competitive bid basis, as are some contracts for the supply of certain standard goods over a period of time. The buyer's requirements are often complex, set forth as *specifications* to be met. Bids are *sealed*, not visible to other bidders or even to the buyer until the bidding period ends and bids are *opened.* A good deal of government procurement is done on an *auction* basis; many governmental entities require competitive bidding for certain purchases.

Pricing in a competitive bidding environment involves a combination of cost-based and market-based pricing. The bid needs to be cost based, in that the bidder will typically wish to quote a price that covers costs and earns some profit. But it also needs to be market based, assessing what other suppliers are likely to bid. Only one award will typically be made, to the lowest bidder who satisfies the quoted specifications. Ideally, one seeks to be the low bidder, but not too much below the second lowest. This type of pricing requires considerable skill.

Applicability of Revenue Management

Revenue management is most associated with customer-based pricing, finding ways to increase total revenue and profit by attracting more customers by offering differential pricing in some form. Yet, revenue management, in the sense of analyzing pricing decisions in accounting and finance terms, applies to all forms of pricing: whether setting list prices or establishing quoted prices for individual customers, and whether prices are based on costs, market conditions, or perceptions of value to the customer. Revenue management using customer-based techniques is not without risks. It must be evaluated to determine that the increased revenues will increase profitability in both the short and long terms. This requires careful analysis and ongoing monitoring.