Price Customization

The higher art of power pricing includes strategies based on customer valuation to boost profits.

by Hermann Simon and Robert J. Dolan

Marketers today are more precisely matching product and service offerings to the desires of individual customers. Titleist brand offers seven different types of golf balls, allowing an individual to trade-off for distance, “feel,” and spin, depending on the type of ball that best suits his or her game. The Coca-Cola Co. has moved from Coca-Cola being its one “anywhere, anytime” drink to a long product line that includes Diet Coke, Caffeine-free Diet Coke, and Cherry Coke. Federal Express offers six different levels of service quality, ranging from same-day to three-day delivery. Through its Web site www.myski.com, Myski offers a customer the chance to custom design a set of skis combining sidecuts, lengths, colors, graphics, and name engraving. Myski describes its factory as being “more like an artist’s studio than an automobile assembly plant.”

This product customization strategy has boosted profits significantly in many situations because it increases the value a customer perceives in having a relationship with the company. Often product customization is augmented by customization of the supporting communications program because more finely targeted media permit economical delivery of messages tailored to specific audiences.

The element of the marketing mix with the greatest degree of missed opportunity for customization is price. Sure, many firms distribute coupons knowing that only the more price sensitive customers will redeem them; effectively, this customizes the low price to this segment of the market. But, even though firms recognize that different customers place different values on a given product, few do anything systematic about it. In pricing, the focus is more on cost and “fairness” considerations than on customer valuations. This leads managers to frame the pricing question as “What should the price be?” when the right questions to ask are:

- What price should an individual with a specific product valuation pay for the product?
- What pricing program yields the right set of prices to the customer base with different values for the product?

Charging everyone the same price works well only if customers are not very different from one another. If all prospective buyers of your product value it at $50, then a one-price policy of $50 to

**EXECUTIVE BRIEFING**

While product and service customization strategies are employed by a growing number of successful companies, customized pricing may offer greater potential profit. But first, managers must determine the different values customers place on their product and what that value is worth to each. Once they have done this and divided customers into segments, they can choose among five innovative techniques to implement price customization. A 20%-50% profit gain could make it well worth investigating.

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all customers is great. You can’t do any better. But, consider a situation in which the average value to a customer is $50, but individuals’ values range from $0-$100 with each valuation being equally likely. In this case, a one-price policy—even if you find the best price—misses a great deal of the profit potential.

Lost Profits

 Exhibit 1 portrays the relationship between price and number of buyers for the described situation of 100 potential buyers with an average evaluation of $50, but varying so we have one potential buyer valuing the product at each of the levels $1, $2, $3,...,$99, $100. The demand curve shows that, if we charge any price (p), we will sell 100-p units. Let’s arbitrarily pick $20 as our unit cost, but the same basic story works through for any cost level. The large shaded triangle (i.e., the area under the demand curve and right of the line vertical at $20) represents the excess of our whole potential buyer group’s evaluation over our costs. If we have a “one-price policy” in mind, we have to pick the price between $20 and $100 that maximizes profit.

In Exhibit 1, a price generates a profit amount equal to the area of the rectangle whose width is the distance from the price to the $20 cost and whose height is the number of units to be sold, i.e., the height of the demand curve at the selected price. Any price we pick between $20 and $100 sweeps out a profit rectangle from inside the big triangle. You can charge a high price and get a low but wide rectangle, or charge a low price and get a high but narrow rectangle. For our chosen scenario, a $60 price optimizes the size of the profit rectangle.

However, even the optimal profit rectangle contains only 50% of the large shaded triangle. The price sweeps out a rectangle and leaves behind two triangles. The “money left on the table” triangle includes those customers who buy at $60, but would have been willing to pay even more; the “passed-up profit” triangle includes customers who value the product at more than $20, but won’t buy it for $60. The profit opportunity with these evaporates into thin air.

For the optimal one-price policy, the two triangles are of the same size. Thus, even the best one-price policy captures only 50% of the profit potential from our value creation efforts. Price customization allows us to get at the profit opportunity in these “left behind” triangles.

The basic idea of price customization is simple: Have people pay prices based on the value they place on the product. Obviously you can’t just hang out a sign saying “Pay me what it’s worth to you” or “It’s $80 if you value it that much but only $40 if you don’t.” You have to find a way to segment customers by their valuations. In a sense, you have to “build a fence” between high-value customers and low-value customers so the “high” buyers can’t take advantage of the low price.

There are a number of ways to do this. For example, adults may be able and willing to pay $7.50 for a movie and kids only $5. We “fence off” the $5 price by making it available only to those under age 12—an observable characteristic of the buyer. In situations where large-volume buyers value a product less than small-volume buyers, we “fence off” the low price by making it available only after so many purchases at a higher price. Business flyers value a seat more highly than do pleasure travelers, so we “fence off” the low pleasure travelers’ price via a Saturday night stay requirement. This fence does not work perfectly in that some business people do stay over a Saturday night, but it is still far better than a one-price policy.

Fencing Mechanisms

In our experience, the five major, innovative techniques for implementing price customization and achieving greater profitability are: (1) multidimensional pricing, (2) quantity discounts, (3)
multiperson pricing, (4) price bundling, and (5) product line alternatives. This variety of methods is necessary because of the different circumstances in which pursuing price customization is potentially viable. Although each technique is operationalized somewhat differently, all share the fact that adjusting prices better to individual customers’ willingness to pay yields profit improvement.

**Multidimensional Pricing**

In multidimensional pricing, two or more price parameters are used instead of one. For example, consider the case of a firm marketing industrial gases supplied in steel cylinders under high pressure. In a one-dimensional price scheme, gas is sold just on a weight basis at a price of, say, $2 per pound. Each customer pays the same price. Price movements can only be along the one dimension of price per pound and competitive prices are directly comparable. One supplier in this market introduced a multidimensional price scheme by charging a rental fee per day for the steel cylinder while reducing the per-pound price of the gas (see Exhibit 2).

Customers pay different transaction prices depending on how fast they use the gas: those who use it fast pay a lower effective price per pound than those who use it slowly. The manufacturer now has more degrees of freedom in managing price because changes can be made along two dimensions. He can now offer the same price plan to all, but it yields higher prices from the slower consumption rate customer. If slower consumption rates go with higher value, the scheme is useful in tapping the value. If the two price components are set correctly, the profit will increase substantially.

A specific example of multidimensional pricing with proven profit impact is the German Railroad Corp.’s (a $15-billion company) 1993 transition from a one- to two-dimensional pricing strategy. The company historically priced transportation between any two points as a simple multiple of the distance between them. However, this price structure was not competitive with driving for many potential riders.

Recognizing this, the company introduced the “BahnCard” at a cost of about $300 per year for first class and $150 for second class. Cardholders can buy tickets at a 50% discount off the standard per-kilometer price. Thus, the price schedule has two dimensions, the card price and the ticket price (or discount level off the traditional per-kilometer charge). The most important effect is that, once a person has bought the card, its price is a sunk cost. The train or car decision then depends solely on the marginal price per kilometer. With the card, the train is below the marginal cost of a car for many. The competitive situation for cardholders has been reversed and strong customer loyalty induced.

With 3.5 million cardholders, the BahnCard has been very successful, increasing the company’s profit by more than $200 million per year. We are currently working on a similar two-dimensional scheme for an airline, a so-called “Fly & Save-Card.” As Exhibit 3 shows, offering a card in the price range of $5,000 per year and a discount of 20% on tickets purchased would increase the company’s profit by about $30 million.

Another example is the Federal Museum of Arts in Bonn, Germany, which offers an “Artcard” at $80. The card grants unlimited access to exhib-
tions, a 30% discount on tickets for special events, free public transportation to the museum, and a 10% discount in the museum restaurant.

Setting the price parameters at the right levels requires detailed, valid information on individual customers. Understanding the average value across the customer base won’t do. In the case of BahnCard, 4,000 customers were interviewed via computer using conjoint measurement techniques. Conjoint was appropriate to the task because it allowed assessment of price sensitivity for individual customers. In the airline case, the sample size was 1,000 business class customers. However, the added profit more than justified the cost of the large samples.

Quantity Discounts

Quantity discount schedules involve a discount in price with an increase in number of units purchased by a given customer. The rationale for this is the fact that, in many situations, the second, third, and more units of a product or service have a lower value to customers than does the first. A good example is the plan offered by a movie theater chain with discounts for successive visits within a month. The number of visits is monitored by means of a card that is issued free at the first visit.

The left side of Exhibit 4 displays three consumer segments—A, B, C—and their willingness to pay for successive visits per month. If the theater operator had a one-price per visit plan, the optimal price would be $5.50 yielding a contribution of $49,000 per month. A much higher contribution of $67,500 is obtained if the price for the first visit is $9, for the second visit $6, the third $5.50, and so on. The right side of Exhibit 4 illustrates that this quantity discount scheme comes much closer to the triangle of maximum profit than the rectangle of uniform price.

These first two types of plans are examples of nonlinear tariffs in that the price paid is not necessarily proportional to the number of units consumed. For nonlinear pricing to be successful, it is critical to know exactly how the “willingness to pay” is distributed across customers. The rewards for better information can be huge, as the movie theater case illustrates. Profit improvements can well range up to 50%, but competitive reaction can play a critical role and should, therefore, be carefully anticipated and observed.

Multiperson Pricing

Multiperson pricing is structurally similar to quantity discounts but involves more than one person. In this case, two (or more) people pay less than a first “full price” customer. The rationale for the discount is that the second person’s willingness-to-pay is less than the first’s. For example, consider a couple, one going on a business trip and the other considering tagging along. Let’s say the business traveler’s willingness to pay is $1,000, and the potentially accompanying spouse’s is only $600. The airline has three alternatives. It can charge $1,000 and get only the business traveler, yielding a contribution of $1,000 (assuming variable costs are negligible). Or it can set a price of $600, getting both as passengers and a higher contribution of $1,200. However, a scheme with $1,000 for the first and $600 for the second person (or a bundle of two tickets at $1,600) is much better. Both buy tickets, and the contribution goes up to $1,600, a 33% improvement over the best single price of $600.

Multiperson pricing is also frequently used for larger groups and is increasingly popular in travel, tourism, hotel, conference, sports, and similar industries. Well-founded multiperson pricing requires detailed information on customers’ willingness-to-pay both for the individual and the groups involved. In practice, the typical profit improvements we observe tend to be in the range of 10%-15%.

Price Bundling

Just as multiperson pricing works across people, bundling works across products. Two or more products are sold together at a price that is less than the sum of their individual prices. In a pure bundling strategy, only the bundle is sold; in a mixed bundling strategy, the individual products are sold separately as well. Bundling is widely used in industries such as fast food, automobiles (with option packages), tourism (air and land portions), information technology and telecommunications. Microsoft’s “Office” product is an extremely successful bundling strategy.

In an interesting case from the automobile industry, a manufacturer was considering offering three package options: “comfort,” “sports,” and “safety.” A “value-to-customer” study revealed that adoption rates were quite sensitive to the discounts for the bundles as compared to the price of options if purchased individually. Bundling also enabled considerable cost reductions because of lower purchasing prices for the components and reduced complexity in logistics and assembly.

Exhibit 5 (see page 16) shows the profit effect of
price bundling for various discount rates on all bundles. (Management wanted to price each of the three bundles at the same discount.) The exhibit indexes the profit with no bundling (equivalent to discount level = 0%) to 100. As shown, a 21% discount yielded optimal profit. At this level, one third of the profit from options comes from the bundles. In this case, the "comfort" bundle was the most popular package and overall options profit increased by 22%.

Recall that differences between customers is the driving force behind price customization.

**Exhibit 4**

Nonlinear pricing for a movie theatre

<table>
<thead>
<tr>
<th>Visits (unit)</th>
<th>Maximum prices per consumer per visit</th>
<th>Optimal price for n-th visit</th>
<th>Visits</th>
<th>Profit (x1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>9.0</td>
</tr>
<tr>
<td>Second</td>
<td>6.0</td>
<td>7.5</td>
<td>10.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Third</td>
<td>3.5</td>
<td>5.5</td>
<td>8.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Fourth</td>
<td>2.0</td>
<td>4.0</td>
<td>6.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Fifth</td>
<td>1.1</td>
<td>1.5</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>11</td>
<td>67.5</td>
</tr>
<tr>
<td>Uniform price</td>
<td></td>
<td></td>
<td></td>
<td>5.5</td>
</tr>
</tbody>
</table>

**From rectangle to triangle**

- Profit with nonlinear pricing
- Profit with uniform pricing

Price

Uniform price

1 2 3 4 5 6 7 8 9 10 11 12

15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
Bundling operates somewhat differently from other schemes because it enhances profitability by reducing the differences between them. The principle, though, is to find those combinations of goods for which willingness-to-pay varies less across customers than willingness-to-pay for individual items. Willingness-to-pay for one product can be transferred to another product—and thus exploited—through the bundling scheme. As with the other methods discussed earlier, we need a high level of information to apply bundling astutely. With solid information on an individual’s willingness-to-pay, we can determine whether separate pricing (unbundling), pure bundling, or mixed bundling is the best approach. Based on our experience, typical profit increases due to bundling are in the range of 15%-25%.

Product Line Alternatives
Premium brands, which are increasingly under attack by aggressive “no-name” products or private labels, can respond in several ways. One solution is to adopt an “everyday low pricing” strategy like Procter & Gamble did for some of its products. A second option—and the classical promotional pattern adopted by many consumer goods companies—is to cut prices temporarily to keep aggressors at bay. A third option is to introduce a less expensive alternative (LEA) in the form of a second brand, a generic/no name label, a private label, or a retailer brand. The most important issue is designing and pricing the LEA to limit cannibalization of the premium brand and foster market share gain for the LEA from the price aggressors.

For example, a leading manufacturer of lighting products chose the LEA route against cheap imports from China. The LEA was not only 40% cheaper, but also had a different design, less costly packaging, and was sold by a special sales force through separate channels. Using this strategy, the company avoided attacking the Chinese products—which were 60%-70% cheaper than the premium brand—too directly, thereby preventing retaliation and a further downward price spiral. After two years, this carefully planned and implemented LEA strategy was a success. About 40% of the LEA’s sales came from cannibalizing the premium brand, but 60% were gained from competing with the Chinese imports. Product and
price policy were set together to divide customers properly between the premium brand and the LEA to maximize profitability.

Conclusion

As we have pointed out in these examples, implementation of price customization can yield significant gains in profit—not 2% or 5% but 20% or 50%—so, it’s well worth investigating. However, effective implementation requires in-depth investigation of customers’ valuation of a product using a variety of techniques, including cost-structure studies, managerial judgments, and surveys. We have found conjoint measurement to be an especially useful tool for valuation of products and the underlying drivers for those evaluations. This information can lead both to proper pricing and product line design. However, one has to be concerned about the perceived “fairness” and legality of the particular price customization plan selected. Fairness perceptions can be managed through communication. For example, hotels in resort areas have done a good job at getting us to think in terms of “off-season discounts” rather than “in-season price premiums.” With respect to legality, the acid test is whether the plan would have the impact of substantially lessening competition, i.e., does selling at a lower price to one party preclude others from effectively competing. Price customization is not easy. But, in the right circumstances, the potential rewards are great.

Additional Reading


About the Authors

Hermann Simon is Chairman and Chief Executive Officer of Simon, Kucher & Partners, strategy & marketing consultants in Bonn, Germany and Cambridge, Mass. He is also a Visiting Professor at the London Business School. Hermann has written and coauthored numerous books, including Price Management, Goodwill and Marketing Strategy, “Simon for Managers,” Pricing Strategies for New Products, Effective Personnel Marketing, Thinking Management—Companies with Vision (in Japanese and Korean), Hidden Champions—Lessons from 500 of the World’s Best Unknown Companies, and Power Pricing. His articles and books have been published in 15 languages. As a member of the Supervisory Boards and Trustee of numerous corporations and foundations, Hermann has gained wide experience in corporate governance. He has been a consultant to major corporations throughout the world such as Siemens, Mercedes-Benz, General Motors, Hewlett Packard, Glaxo-Wellcome, Kodak, and Shell.

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