

Sixth edition



# THE STRATEGY AND TACTICS OF PRICING

A Guide to Growing More Profitably



Thomas T. Nagle and Georg Müller



# THE STRATEGY AND TACTICS OF PRICING

*The Strategy and Tactics of Pricing* explains how to manage markets strategically and how to grow more profitably. Rather than calculating prices to cover costs or achieve sales goals, students will learn to make strategic pricing decisions that proactively manage customer perceptions of value, motivate purchasing decisions, and shift demand curves.

This edition features a new discussion on harnessing concepts from behavioral economics as well as a more streamlined “value cascade” structure to the topics. Readers will also benefit from:

- Major revisions to almost half of the chapters, including an expanded discussion of big data analytics and a revised chapter on “Specialized Strategies”, which addresses timely technical issues like foreign exchange risks, reactions to market slumps, and managing transfer prices between independent profit centers.
- A completely rewritten chapter on “Creating a Strategic Pricing Capability”, which shows readers how to implement the principles of value-based, strategic pricing successfully in their organizations.
- In-chapter textboxes, updated to provide walk-through examples of current pricing challenges, revenue models enabled by an increasingly digital economy, and advances in buyer decision-making, explained through classic principles that still apply today.
- Chapter summaries and visual aids, which help readers grasp the theoretical frameworks and actionable principles of pricing analysis.

This comprehensive, managerially-focused text is a must-read for students and professionals with an interest in strategic marketing and pricing. A companion website features PowerPoint slides with instructor notes, discussion questions, and exercises, as well as suggested readings and cases with separate teaching notes for instructors.

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"The principles of business profitability stressed in *The Strategy and Tactics of Pricing* make it an absolute must-read for all business professionals who care about creating value and profitability for their organization. I have personally practiced the knowledge gained from *The Strategy and Tactics of Pricing*, operating in hyper-competitive business environments, with great success."

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—Kevin Mitchell, President of The Professional Pricing Society, Inc., USA

"The best pricing book on the planet! The go-to resource for pricing success—powerful, practical, and profitable!"

—Mark Bergen, James D. Watkins Chair in Marketing, Carlson School of Management, University of Minnesota, USA

*Sixth Edition*

# THE STRATEGY AND TACTICS OF PRICING

A GUIDE TO GROWING  
MORE PROFITABLY

Thomas T. Nagle

Georg Müller

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# PREFACE

Since the first edition of this book over 30 years ago, our goal has been to rebut the common misperception that pricing is an afterthought to a growth strategy: a simple process of calculating the “right” price for a product or transaction. Over those years, both marketing practitioners and academics have largely come to recognize that a profitable pricing strategy requires proactively managing much more than just price. It requires thoughtful and proactive management of choices about what to offer, how information about price and value is communicated, perceptions created in the process of price negotiation, and choices about when, where, and how to compete for market share. Today leading organizations are leveraging the principles of strategic pricing described in this book to actively influence willingness-to-pay. They are, in effect, shifting demand curves as opposed to just reacting to them.

To influence demand and willingness-to-pay, profitable pricing requires looking beneath simple concepts like demand and demand elasticity to understand and manage the perceptions of monetary and psychological value that motivate purchase decisions. Mastering the value proposition enables a firm (i) to segment prices to reflect differences in value and cost; (ii) to communicate the value of its offers to customers unfamiliar with the market; and (iii) to create pricing policies for managing pricing issues fairly and consistently. In short, this book shows managers how to move from tactically “optimizing” prices in markets where they seemingly exercise little control to managing the market strategically. When that happens, pricing becomes an integral part of a strategy to grow *profitably*, rather than just a blunt instrument to drive sales and market share.

The principles of strategic pricing, which were foreign to most business practitioners when the first edition of this book was published more than three decades ago, are now more widely accepted in principle. However, most companies still struggle with their application. The changes in this sixth edition of our book reflect our attempts to address this need:

- To help our readers better conceptualize the range of interrelated tasks involved in strategic pricing, we have organized this edition around a “value cascade” that organizes those tasks into six distinct categories.
- The field of behavioral economics has absolutely exploded since the first edition of this book and has gained more widespread acceptance; the chapter on “Price and Value Communication: Strategies to Influence Willingness-to-Pay” highlights several of the behavioral economic principles that are particularly important to consider when proactively managing prices and value perceptions.
- We have substantially revised the chapter on “Price Level: Setting the Prices That Capture a Share of the Value Created” to present a robust process for determining appropriate price levels. The chapter reflects the reality that companies in only a few markets (e.g., online retailing) can map their demand, and its changes over time, with sufficient accuracy to set the “best” price exactly. Our approach now describes how

to assemble data and process information to support a cross-functional dialogue that arrives at “good” price decisions based upon thoughtfully weighing the information at hand.

- The chapter on “Price Competition: Managing Conflict Thoughtfully” provides an in-depth understanding of value-destroying price wars, how to mitigate the damage of a price war, and perhaps most important, how to minimize the chances of provoking destructive responses to one’s own pricing decisions.
- The chapter on “Specialized Strategies: Adapting Pricing to Accommodate Common Challenges” has been added to address some of the more technical issues that managers might encounter such as managing pricing over a product lifecycle, addressing foreign exchange risks, how to act when a market slumps, and managing transfer prices between independent profit centers.
- A completely rewritten chapter on “Creating a Strategic Pricing Capability” describes the process for transforming an organization to one that embeds the principles of value-based strategic pricing into the processes and incentives of the organization.
- Throughout this edition, we have updated examples to illustrate more current pricing challenges, new revenue models enabled by our increasingly digital economy, and advances in the study of buyer decision making. At the same time, we have also retained a number of “classic” examples that contain lessons that remain highly relevant and applicable today.

As with prior editions, the primary objective of this book is to develop a practical and readable manager’s guide to pricing. Professors will be happy to learn that we have updated the Instructor’s Manual for this edition to include new exercises, mini-cases, and examination questions. We also provide a link to Deloitte’s Polaris analytical pricing software to allow students to put theory into practice by exploring real-world scenarios.

# ACKNOWLEDGMENTS

Over the years the book has benefited from the influence and efforts of individuals too numerous to mention here. Nevertheless, we would be remiss not to acknowledge a few whose contributions have either been very large or new to this edition. Professor Gerald Smith's contributions to the prior editions of this book and the instructor's manuals are still reflected in the current ones. Professor Mark Bergen was an invaluable sounding board and source of inspiration in developing portions of this book. Michael Goldberg was a diligent researcher, copy editor, and administrator, without whose persistent prodding this edition would still be "in process." Junaid Qureshi drew on his expertise of the gaming industry to develop a very compelling overview of the evolution of pricing models for video games to augment the chapter on "Price Structure: Tactics for Pricing Differently Across Customer Segments." Eugene Zelek, together with his colleague, Lauren Berheide, of Freeborn & Peters once again shared his knowledge of pricing and the law to keep that chapter current. We would also like to thank our colleagues at Deloitte Consulting who have supported our efforts. Laura McGoff, Liz Lee, and Anusha Singuluri were tremendous in helping us obtain reprint permissions, creating the exhibits, and ensuring that we fulfilled all requirements of our firm. Lisa Iliff provided a careful and thoughtful review of the final manuscript and Josh Skwarczyk tracked down references and citations to support our narrative. In addition, we had the good fortune of working with our editors at Routledge, where Sharon Golan, acquisitions editor, and Erin Arata, editorial assistant, were very thoughtful and exhibited great patience in guiding us to the end product.

Finally, Tom Nagle would like to thank his wife, Leslie, for her patience and diligent copy editing which she has generously provided through 32 years of marriage and six editions of this book. Georg Müller thanks his wife Kathy and son Oskar for their unwavering support and encouragement while he spent his evenings and weekends writing and developing this book.

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## Strategic Pricing Coordinating the Drivers of Profitability

*If you have to have a prayer session before raising the price by 10 percent, then you've got a terrible business.*

Warren Buffet<sup>1</sup>

Marketing consists of four key elements: The product, its promotion, its placement or distribution, and its price. The first three elements—product, promotion, and placement—comprise a firm's effort to create value in the marketplace. The last element—pricing—differs essentially from the other three: It represents the firm's attempt to capture some of the value in the profit it earns. If effective product development, promotion, and placement sow the seeds of business success, effective pricing is the harvest. Although effective pricing can never compensate for poor execution of the first three elements, ineffective pricing can surely prevent those efforts from resulting in financial success. Regrettably, this is a common occurrence.

Complicating matters, the ability to harvest potential profits is in a continuous state of flux as technology, regulation, market information, consumer preferences, or relative costs change. Consequently, companies that expect to grow profitably in changing markets often need to break old rules, including those that govern how they will set prices to earn revenues. Our interest in strategic pricing dates back to when the telecommunications industry was deregulated in most developed countries and new suppliers recognized that they could gain both market share and profitability by replacing the then prevailing price-per-minute revenue models with more innovative models—first including a price per month for a bundle of “peak” minutes plus “free” off-peak time. Later, they introduced “family plans” involving the sharing of minutes across numbers. Similarly, Apple quickly went from nothing to market leadership in music sales, in large part because, after the internet slashed the cost of distribution, it was the first to recognize that it was better to price music by the song than by the album. And at the time of writing this edition, the predominant revenue model for music is shifting yet again, with subscription-based streaming services such as Spotify and Apple Music<sup>®</sup> overtaking digital

music store sales.<sup>2</sup> Producers of new online media created a new metric for pricing ads—cost per click—that aligned the cost of an ad more closely to its value than was possible in traditional print media. Even governments have begun to use prices, often called “user fees,” instead of taxes to raise revenues and better allocate scarce resources. Congested cities, such as London and Singapore, charge to drive a car into congested areas during peak times and highways in major U.S. cities such as Atlanta and Minneapolis increasingly have express lanes that are kept moving even during rush hours by adjusting a wirelessly collected price to access them.<sup>3</sup>

Unfortunately, few managers, even those in marketing, have been trained in how to develop innovative pricing strategies such as these. Most companies still make pricing decisions in reaction to change rather than in anticipation of it. This is unfortunate, given that the need for rapid and thoughtful adaptations to changing markets has never been greater. The information revolution has made prices everywhere more transparent and customers more price aware.<sup>4</sup> The globalization of markets, even for services, has increased the number of competitors and often lowered their cost of sales. The high rate of technological change in many industries has created new sources of value for customers, but not necessarily led to increases in profit for the producers.

Improvements in technology have driven an explosion of data that some suppliers are using to target customers they can serve more profitably: Either because those customers are more willing to pay for the differentiation the company can offer or because the company can meet their needs more cost-effectively than competitors. This is especially true of consumer goods, where manufacturers used to operate with only minimal and long-delayed data on where and how well their products were selling in retail stores, and pricing involved negotiating “trade promotions” with channel intermediaries that may or may not have passed the savings on to end consumers. Now, with the ability to buy almost “real time” data on how individual package sizes are selling in types of outlets and in specific geographies, manufacturers are able to develop more sophisticated pricing strategies to target specific types of customers and competitors. At the extreme, many retailers charge online shoppers different prices or offer them different product assortments based on the type of device they are using to access the site, with the theory that the type of device can signal a systematic difference in willingness-to-pay.<sup>5</sup>

## **LEVERAGING PROFIT INTO SUSTAINABLE GROWTH**

Learning to make sales more profitably is the key to achieving sustainable growth in revenue, market share, and company value over the long haul. When the first edition of this book was published more than three decades ago, the idea that profit margins should be prioritized over growth was seen as short-sighted. A 1975 study conducted at the Harvard Business School using the PIMS (which originally stood for Profit Impact of Market Share) database of historical market performance of leading global companies reported a strong, consistently positive, correlation between a company’s market share and its relative profitability within an industry.<sup>6</sup> In the *Harvard Business Review* article discussing this study, the authors proposed multiple plausible reasons why a larger market share could enable a company to operate more profitably.

That led to an explosion of literature by marketing theorists and leading consultancies advocating aggressively low pricing as an “investment” in growth that would eventually create “cash cows”—exceptionally profitable revenue streams requiring little investment to maintain them.

Unfortunately, companies that adopted this approach to pricing, more often than not, found the theory and the eventual profitability it promised lacking. As the PIMS database grew to cover multiple years, more nuanced relationships were revealed. Although a cross-sectional correlation between market share and profitability proved durable, how a company invested to grow was shown to be a better predictor of financial success. Consequently, the PIMS organization cleverly redefined their acronym to stand for Profit Impact of Marketing Strategy.

More recent research by Deloitte Consulting LLP has brought further clarity to the relationship between growth and profitability. Deloitte compiled a time-series dataset of 394 companies, covering the period from 1970 to 2013 with exceptional, mediocre and poor performers matched by industry. The researchers defined “exceptional performance” as a company achieving superior profitability (return on assets), stock value, and revenue growth for more than a decade and sought to understand how a small minority of firms manage to achieve it. Their conclusion:

*a [near term] focus on profitability, rather than revenue growth or [stock] value creation, offers a surer path to enduring exceptional performance.<sup>7</sup>*

So how do marketing and financial managers at exceptional companies achieve sustainable exceptional profitability? It is not the result of slashing overheads more ruthlessly than their competitors. In fact, Deloitte’s data indicates that exceptional performers tend to spend a bit more than competitors (as a percent of sales) on R&D and SG&A. Their exceptional profitability and, eventually, exceptional stock valuations are built on higher margins per sale that fund initiatives to grow revenues without compromising those margins.<sup>8</sup>

Unfortunately, many companies fail to understand that making sales profitably should be the first priority—not an afterthought—of a strategy for driving growth. Creating and communicating superior value propositions or finding a way to deliver superior value at lower cost is a precondition to sustainable revenue growth. Many years of experience have taught us that applying the principles explained in these pages is necessary to make sales more profitable and at least equal with the best in the industry.

The difference between successful and unsuccessful pricers lies in how they approach the process. To achieve superior, sustainable profitability, pricing must become an integral part of strategy. Strategic pricers do not ask, “What prices do we need to cover our costs and earn a profit?” Rather, they ask, “What costs can we afford to incur, given the prices achievable in the market, and still earn a profit?” Strategic pricers do not ask, “What price is this customer willing to pay?” but “What is our product worth to this customer and how can we better communicate that value, thus justifying the price?” When value doesn’t justify price to some customers, strategic pricers do not surreptitiously discount. Instead, they consider how they can segment the market with different products or distribution channels to serve these customers without undermining the perceived value to other customers. And strategic pricers never ask, “What prices do we need to meet our sales or



market share objectives?" Instead they ask, "What level of sales or market share can we most profitably achieve?"

Strategic pricing often requires more than just a change in attitude; it requires a change in when, how, and who makes pricing decisions. For example, strategic pricing requires anticipating price levels before beginning product development. It requires determining the economic value of a product or service, which depends on the alternatives customers have available to satisfy the same need. We go into much more depth on the concept of Economic Value Estimation (EVE®) in Chapter 2. The only way to ensure profitable pricing is to reject early those ideas for which adequate value cannot be captured to justify the cost.

Strategic pricing also requires that management take responsibility for establishing a coherent set of pricing policies and procedures, consistent with the company's strategic goals. Abdicating responsibility for pricing to the sales force or to the distribution channel is abdicating responsibility for the strategic direction of the business.

Perhaps most important, strategic pricing requires a new relationship between marketing and finance because pricing involves finding a balance between the customer's desire to obtain good value and the firm's need to cover costs and earn profits. Unfortunately, pricing at most companies is characterized more by conflict than by balance between these objectives. If pricing is to reflect the value to the customer, specific prices must be set by those best able to anticipate that value—presumably marketing and sales managers. The problem is that their efforts will not generate substantial profits unless constrained by appropriate financial objectives. Rather than attempting to "cover costs," finance must learn how costs change with shifts in sales volume and use that knowledge to develop appropriate incentives for marketing and sales to achieve their objectives.

With their respective roles appropriately defined, marketing and finance can work together toward a common goal—to achieve profitability through strategic pricing.

Before marketing and sales can attain this goal, however, managers in all functional areas must discard the flawed thinking about pricing that frequently leads them into conflict and that drives them to make unprofitable decisions. Let's look at these flawed paradigms so that you can recognize them and understand why you need to let them go.

## **COST-PLUS PRICING**

Cost-plus pricing is, historically, the most common pricing procedure because it carries an aura of financial prudence. Financial prudence, according to this view, is achieved by pricing every product or service to yield a fair return over all costs, fully and fairly allocated. In theory, it is a simple guide to profitability; in practice, it is a blueprint for mediocre financial performance.

The problem with cost-driven pricing is fundamental: In most industries, it is impossible to determine a product's unit cost before determining its price. Why? Because unit costs change with volume. This cost change occurs because a significant portion of costs are "fixed" and must somehow be "allocated" to determine the full unit cost. Unfortunately, because these allocations depend on volume, and volume changes as prices change, unit cost is a moving target.

To solve the problem of determining unit cost before determining price, cost-based pricers are forced to assume a level of sales volume and then to make the absurd assumption that they can set price without affecting that volume. The failure to account for the effects of price on volume, and of volume on costs, leads managers directly into pricing decisions that undermine profits. A price increase to cover higher fixed costs can start a death spiral in which higher prices reduce sales and raise average unit costs further, indicating (according to cost-plus theory) that prices should be raised even higher. On the other hand, if sales are higher than expected, fixed costs are spread over more units, allowing average unit costs to decline a lot. According to cost-plus theory, that would call for lower prices. Cost-plus pricing leads to overpricing in weak markets and underpricing in strong ones—exactly the opposite direction of a prudent strategy.

How, then, should managers deal with the problem of pricing to cover fixed costs? They shouldn't. The question itself reflects an erroneous perception of the role of pricing, a perception based on the belief that one can first determine sales levels, then calculate unit cost and profit objectives, and then set a price. Once managers realize that sales volume (the beginning assumption) depends on price (the end of the process), the flawed circularity of cost-based pricing is obvious. The only way to ensure profitable pricing is to let anticipated pricing determine the costs incurred rather than the other way around. Value-based pricing must begin *before* investments are made using a process that we will describe later in this chapter.

## **CUSTOMER-DRIVEN PRICING**

Many companies now recognize the fallacy of cost-based pricing and its adverse effect on profit. They realize the need for pricing to reflect market conditions. As a result, some firms have taken pricing authority away from financial managers and given it to sales or product managers. In theory, this trend is consistent with value-based pricing, since marketing and sales are that part of the organization best positioned to understand value to the customer. In practice, however, their misuse of pricing to achieve short-term sales objectives often undermines perceived value and depresses future profitability.

The purpose of strategic pricing is not simply to create satisfied customers. Customer satisfaction can usually be bought by a combination of overdelivering on value and underpricing products. But marketers delude themselves if they believe that the resulting increases in sales represent marketing successes. The purpose of strategic pricing is to price more profitably by capturing more value, not necessarily by making more sales. When marketers confuse the first objective with the second, they fall into the trap of pricing at whatever buyers are willing to pay, rather than at what the product is really worth. Although that decision may enable marketing and sales managers to meet their sales objectives, it invariably undermines long-term profitability.

Two problems arise when prices reflect the amount buyers seem willing to pay. First, sophisticated buyers are rarely honest about how much they are actually willing to pay for a product. Professional purchasing agents are adept at concealing the true value of a product to their organizations. Once buyers learn that sellers' prices are reactively flexible, they have a financial incentive to conceal information from, and even mislead, sellers. Obviously,

this undermines the salesperson's ability to establish close relationships with customers and to understand their needs.

Second, there is an even more fundamental problem with pricing to reflect customers' willingness-to-pay. The job of sales and marketing is not simply to process orders at whatever price customers are currently willing to pay, but rather to raise customers' willingness-to-pay to a level that better reflects the product's true value. Many companies underprice truly innovative products because they ask potential customers, who lack prior experience from which to judge the product's value, what they would be willing to pay for it. But we know from studies of innovations that the price has little impact on whether customers are willing to try them.<sup>9</sup> For example, most customers initially perceived that photocopiers, mainframe computers, home air conditioners, and MP3 players lacked adequate value to justify purchase at viable prices. Only after trial by a small subset of "innovator" customers, followed by extensive marketing to communicate and guarantee value to a broader market, did these products achieve market acceptance. Forget what customers who have never used your product are initially willing to pay. Instead, understand what the value of the product could be for satisfied customers, communicate that value to the currently uninformed, and set prices accordingly. Low pricing is always a poor substitute for an inadequate marketing and sales effort.

## **SHARE-DRIVEN PRICING**

Finally, consider the policy of letting pricing be dictated by competitive conditions. In this view, pricing is a tool to achieve gains in market share. In the minds of some managers, this method is "pricing strategically." Actually, it is more analogous to "letting the tail wag the dog." Occasionally, networking effects make a product or service more valuable when other people are patronizing the same brand, as was the case for example with eBay, the online marketplace. In most cases, however, there is no reason why an organization should seek to achieve market share as an end in itself.

Although cutting price is probably the quickest, most effective way to achieve sales objectives, it is usually a poor decision financially. Because a price cut can be so easily matched, it offers only a short-term market advantage at the expense of permanently lower margins. Consequently, unless a company has good reason to believe that its competitors cannot match a price cut, the long-term cost of using price as a competitive weapon usually exceeds any short-term benefit. Although product differentiation, advertising, and improved distribution do not increase sales as quickly as price cuts, their benefit is more sustainable and thus is usually more cost-effective in the long run.

The goal of pricing should be to find the combination of margin and market share that maximizes profitability over the long term. Sometimes, the most profitable price is one that substantially restricts market share relative to the competition. Godiva chocolates, Apple iPhones®, Peterbilt trucks, and Snap-on tools would no doubt all gain substantial market share if priced closer to the competition. It is doubtful, however, that the added share would be worth forgoing their profitable and successful positioning as high-priced brands.

Strategic pricing requires making informed trade-offs between price and volume in order to maximize profits. These trade-offs come in two forms. The first trade-off involves the willingness to lower price to exploit a market opportunity to drive volume. Cost-plus pricers are often reluctant to exploit these opportunities because they reduce the average contribution margin across the product line, giving the appearance that it is underperforming relative to other products. But if the opportunity for incremental volume is large and well targeted, a lower contribution margin can actually drive a higher total profit. The second trade-off involves the willingness to give up volume by raising prices. Competitor- and customer-oriented pricers find it very difficult to hold the line on price increases in the face of a lost deal or reduced volume. Yet the economics of a price increase can be compelling. For example, a product with a 30 percent contribution margin could lose up to 25 percent of its volume following a 10 percent price increase before that move results in lower profitability.

Effective managers of pricing regularly evaluate the balance between profitability and market share and are willing to make hard decisions when the balance tips too far in one direction. (We will show you how to make such calculations later in this book). Key to making those managers effective, however, is performance measures and incentives that reward them for improving profitability, not just revenue.

## **THE ROLE OF “OPTIMIZING” IN STRATEGIC PRICING**

Economic theorists propose pricing based upon estimating the demand curve for a product and then “optimizing” the price level, given the incremental cost of production. In theory, this is totally consistent with the approach we propose in this book, but in practice it is almost always impractical. The reason lies in the assumption that a demand curve is something stable that one can measure with sufficient speed and accuracy to continually optimize it. Contrary to the assumptions that economists make when studying markets, the demand for individual products or brands within markets is rarely stable or easily measured. The reason: Sensitivity to price depends as much on ever-changing purchase contexts and perceptions as on underlying needs or preferences. For example, contradicting the assumption of a demand curve, the amount of a product that customers will buy at a particular price point is strongly affected by the prices they paid recently. When gasoline prices are rising, the demand for premium grades of gasoline will fall quickly by a much greater percentage than demand for regular grades. But when prices decline back to where they started, demand for premium grades will not recover quickly. That is, demand when prices are going up is generally much more “price elastic” than when prices are coming down.

More importantly, behavioral economics research over the past few decades has proven conclusively that differences in how prices are presented and the surrounding context can lead buyers to respond in ways that are inconsistent with the idea of a stable demand curve that reflects fixed preferences.<sup>10</sup> For example, if one adds a higher priced product to the choices available in a store—say a “best” version to go along with a “good” and a “better” version—economic theory would predict that the higher-priced “best” version would primarily draw sales from the mid-priced “better” version, which turns

out to be true. What it does not predict is that the mid-priced version will at the same time gain sales at the expense of the cheapest version even though the prices of those two versions remain unchanged.<sup>11</sup> To add to the instability, we know that the demand for the mid-price product will be greater if the offers are presented beginning from the top down rather than from the bottom up.<sup>12</sup>

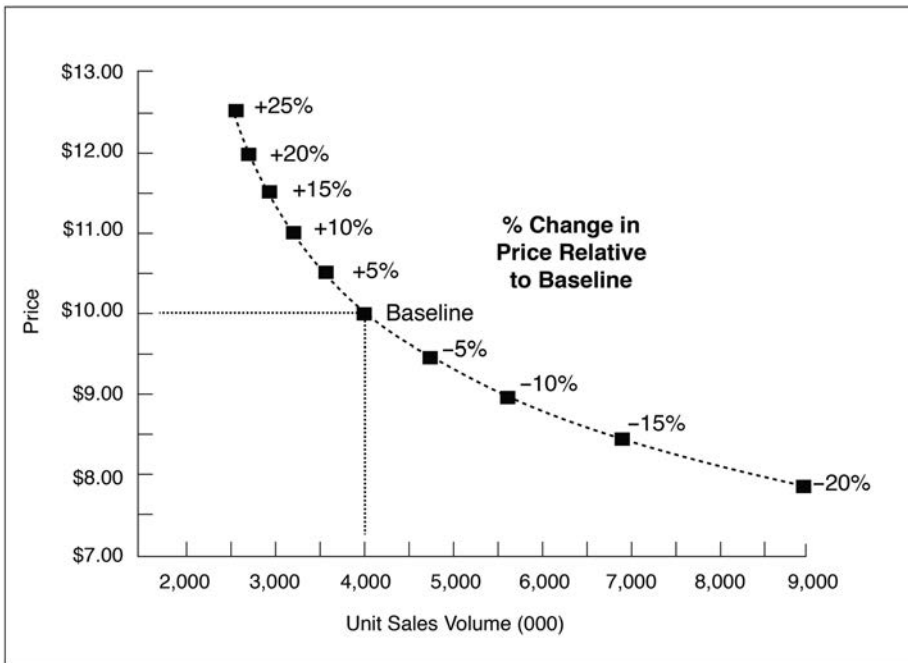
These examples illustrate just a few of the effects that appear to shift demand curves in ways that are contextual. Still, one cannot deny the fact that the profitability of a price increase will depend upon whether the loss in sales is not too great, while the profitability of a price decrease depends upon whether the gain in sales is great enough. Economists refer to the actual percentage change in sales divided by the percentage change in price as the *price elasticity of demand*. Actual elasticity depends in part upon how effectively marketers manage customer perceptions and the purchase context, as you will come to see in the following chapters. Moreover, many factors that influence price elasticity are not under the marketer's control, making precise estimates of actual price elasticity very difficult and only rarely cost effective. Consequently, we have found that instead of asking "What is price elasticity for this product?" it is often more practical and useful to ask "What is the minimum elasticity that would be necessary to justify a particular price change?" that has been proposed to achieve some business objective. To put the question in less technical jargon, we ask "What percent change in sales would be necessary (which is the same as asking what price elasticity would be necessary) for a proposed price change to maintain the same total profit contribution after a price change?" We refer to the answer as the *breakeven sales change* associated with a proposed price change.

If we create a graph of breakeven sales changes associated with different potential price changes, we can create a *breakeven sales curve* that looks much like a demand curve, as shown in Exhibit 1-1, which shows the example of a product that earns a 45 percent gross margin at a baseline price of \$10. It is a representation of how much demand is needed to maintain current profitability as prices change. If actual demand proves to be less elastic (steeper) than the breakeven sales curve, then higher prices will be more profitable. If the actual demand proves to be less steep (more elastic) than the breakeven sales curve, then lower prices will be more profitable. Technical details about how to calculate a correct breakeven sales change for any particular product and pricing decision are described in Chapter 9.

None of this implies that research to understand demand price elasticity is not valuable. We are simply observing that, given the usual instability of demand estimates over the time period required to make them, attempting to improve profitability by exactly "optimizing" price levels is usually not practical. What is valuable is research to understand how differences in identifiable purchase contexts (e.g., online versus in-store purchases, standard versus rush orders) or how marketing strategies to influence perceptions of value can influence demand elasticity. Research is also useful when developing offers to understand the relative impact of different features and services that one might offer on perceived value.

Finally, we should acknowledge that it is possible in a small number of markets to measure demand price elasticity accurately in real time, enabling managers to track the effect of changes ranging from the weather to the daily

EXHIBIT 1-1 Breakeven Sales Curve Associated with Different Price Changes



news, to the time of day can have on them. Consumer packaged goods companies can purchase huge quantities of scanner-recorded sales data from retail stores, far more than would ever be practical to generate from market research. They can then build “big data” statistical models that use such data to measure price elasticity as precisely as possible by measuring and controlling for many contextual factors (such as alternatives available in the store and their prices, the time of day and day of week, the size of the customers total purchase, the store location) that can influence it. In these cases, the effort to make small price adjustments to optimize profitability have proven worthwhile.

## WHAT IS STRATEGIC PRICING?

As you probably remember from basic economics, the optimal price one can charge is limited by the demand curve: A summary of what customers are willing to pay to buy various quantities of volume. Pricing, given the assumptions of economics, is simply about optimizing the price level given that demand. In reality, however, demand for most products and services is not given. It is created, sometimes thoughtfully and sometimes haphazardly, by decisions that sellers make about what to offer their customers, how to communicate their offers, how to price differently across customers or applications and how to manage customer price expectations and incentives. Making these decisions thoughtfully and implementing them effectively to maximize profitability is what we call “strategic pricing.”

The word “strategic” is used in various contexts to imply different things. Here, we use it to mean the coordination of otherwise independent activities to

achieve a common objective. For strategic pricing, the objective is sustainable profitability. Achieving exceptional profitability requires making thoughtful decisions about much more than just price levels. It requires ensuring that products and services include just those features that customers are willing to pay for, without those that unnecessarily drive up cost by more than they add to value. It requires translating the differentiated benefits your company offers into customer perceptions of a fair price premium for those benefits. It requires creativity in how you collect revenues so that customers who get more value from your differentiation pay more for it. It requires varying price to use fixed costs optimally and to discourage customer behaviors that drive excessive service costs. It sometimes requires building capabilities to mitigate the behavior of aggressive competitors.

Although different strategies can achieve profitable results even within the same industry, nearly all successful pricing strategies embody three principles. They are value-based, proactive, and profit-driven:

- *Value-based* means that differences in pricing across customers or applications reflect differences in the value to customers. For example, many managers ask whether they should lower prices in response to reduced market demand during a recession. The answer: If customers receive less value from your product or service because of the recession, then prices should reflect that. But the fact that fewer customers are in the market for your product does not necessarily imply that those who remain value it less than when they were more numerous. Unless a close competitor has cut its price giving customers a better alternative, there may be no value-based reason for you to do so.
- *Proactive* means that companies anticipate disruptive events (for example, a new competitive threat or a customer's decision to award business via a reverse auction) and develop strategies in advance to deal with them. For example, anticipating that a recession or a new competitive entry will cause customers to ask for lower prices, a proactive company develops a lower-priced service option or a loyalty program, enabling it to define the terms and trade-offs of the expected interaction, rather than forcing it to react to terms and trade-offs defined by the customer or the competitor.
- *Profit-driven* means that the company evaluates its success at price management by what it earns relative to alternative investments rather than by its market share and growth relative to its competitors. When Apple launched its first iPhone® at \$499, commentators accused Apple of overpricing (with less-featured competitive phones costing no more than half as much).<sup>13</sup> But Apple easily sold its new innovation to a subset of "techies" and invested to ensure they had a great experience. Then, when it cut the price to \$399, many more buyers saw it as a bargain. Still, competitors have soon launched knock-offs that copy each of Apple's new iPhone innovations within a year or so, and smartphones based upon the Android platform have overtaken those of Apple in unit sales by a wide margin.<sup>14</sup> So should Apple be worried? We think not, and neither do Apple's investors. With most of its profits coming from smartphone sales, Apple is the most profitable and most valuable company in the world at the time we are writing this. Moreover, while many of its competitors are

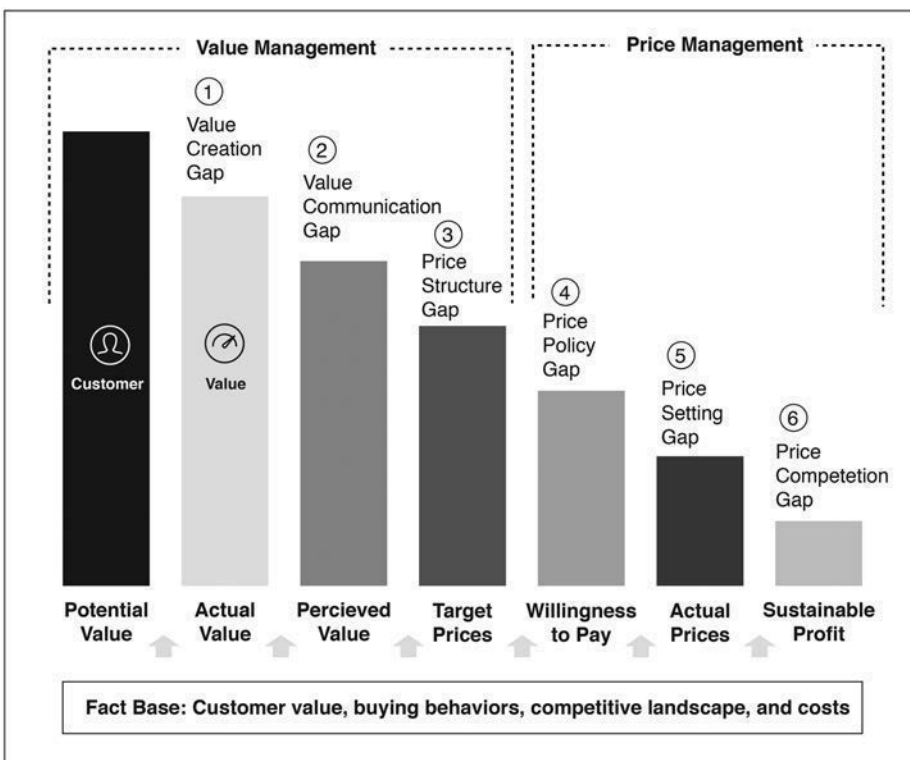
cutting prices to penetrate large and rapidly growing but lower-income markets like China, Apple is not. Instead, it is adding more functionality and building more Apple stores in those markets to ensure that customers have the same exceptional experience that hooked Apple loyalists in developed markets, investments it can easily afford given the higher margins it earns from each buyer.

These three principles will resurface throughout this book as we discuss how to define and make good choices. Strategic pricing is not a discipline separate from the rest of marketing strategy; it is rather a set of principles for creating marketing strategies that drive growth profitably.

A good pricing strategy involves six distinct but very different choices that build upon one another. The choices are represented graphically as six points in what we call the Value Cascade (Exhibit 1-2). The core function of a successful firm is to create value; first and foremost for customers, but also for the internal constituencies that rely on the firm for employment and returns on investment. Strategic pricing is about managing value, from its creation through its capture in price setting, in a coordinated way that enables the organization to achieve a high, sustainable return from its efforts.

The first thing that strikes most people new to the subject of strategic pricing is that setting a price level is just one step in a multistep process that impacts the full range of marketing decisions. If the goal of pricing profitably

**EXHIBIT 1-2 The Value Cascade: Strategic Pricing Requires Effective Management of Both Value and Price**





is considered only when price levels are set, then multiple marketing choices are likely to be made in ways that will dissipate profit potential (the “gaps” in our diagram) well before any product or service is offered for sale.

Although this book contains a chapter devoted to addressing each of these topics individually, it is useful to have an overall vision—a map if you will—of how and why they fit together in this particular order. Both managers and pricing consultants are often called upon to fix strategies that are generating poor financial returns despite driving revenues. Consequently, they may start anywhere on this choice cascade based upon their initial assessment of the potential for improvement. For our overview, we will follow the order of the numbers in the exhibit, which reflect the order in which you would typically need to address these issues if building the marketing strategy for a new product or service from scratch.

## VALUE CREATION

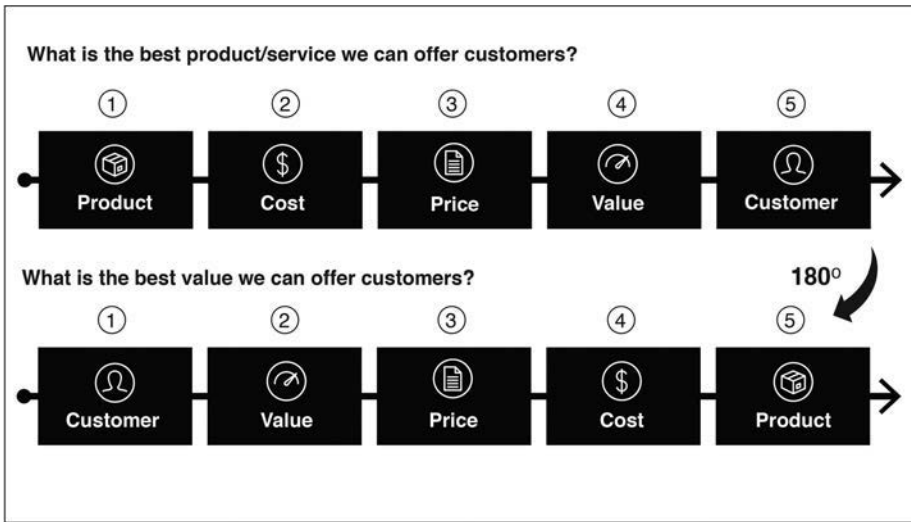
It is often asserted as a truism that the value of something is whatever someone will pay for it. We disagree. People sometimes pay for things that soon disappoint them in use (for example, time-share condominiums). They fail to get “value for money,” do not repeat the purchase, and discourage others from making the same mistake. At the other extreme, people are often reluctant to pay any price for radical new innovations simply because they lack the experience, either their own or that of someone else whose judgment they trust, from which to judge the value that the innovation could bring to their lives. For companies trying to gain share in established markets by creating differentiated product and service offerings, the challenge is simply to get customers already in the market to pay a premium price that exceeds the added cost to deliver that differentiation.

Of course, it is sometimes possible to deceive people into making one-time purchases at prices ultimately proven to be unjustified, but that is not a viable strategy for an ongoing enterprise, nor is it our agenda in this book. Our intention is to show marketers how to create value cost-effectively and convince people to pay prices commensurate with that value. We expect that, as a result, those of you who apply these ideas will contribute to an economic system in which firms that are more adept at creating value for customers are most rewarded with higher margins and market value.

Some companies that have exceptional technologies and capabilities with the potential to create great value fail to convert them into offers that generate exceptional, or even adequate, profitability. They make the mistake of believing that more, from a technological perspective, is necessarily better for the customer. One of us worked for a company making high-quality office furniture that was disappointed by its low share in fast-growing, entrepreneurial markets. The company wanted a strategy to convince those buyers what more established companies recognized already: That highly durable office furniture that would hold its appearance and function for 20 or more years was a good investment. But it took only a few interviews with buyers in the target market to recognize the problem. Companies in this market expected either to be bought out in five years or be gone. The problem was not that customers did not recognize the differentiating benefits of the company’s products. It was that the target market saw little value associated with those benefits.

Exhibit 1-3 illustrates the flawed progression of cost-plus pricing and the necessary progression for value-based pricing. Cost-based pricing is product

## EXHIBIT 1-3 Value-Based Pricing Involves Offering Customers “Good Value”



driven. Engineering and manufacturing departments design and make what they consider a “good” product. In the process, they make investments that incur costs to add features and related services. Finance then totals these costs to determine a “target” price. Only at this stage does marketing enter the process, charged with the task of demonstrating enough value in the product to justify pricing to customers.

If the cost-based price proves unjustifiable, managers may try to fix the disappointing sales by allowing “flexibility” in the price. Although this tactic may help meet the sales goal, it is not fundamentally a solution to the problem of pricing profitably. That problem will arise again as the features and costs of the new products continue to mismatch the needs and values of customers.

Solving the problem of product development and costing disconnected from value to the customer requires more than a simple fix. It requires a complete reversal of the process. For value-based pricing, the target price is based on an estimate of value, not costs. The target price then drives decisions about what costs to incur, rather than the other way around.

### The Story of the Mustang

Product development driven by value-based pricing is still the exception, but not among the most successful product launches. One early example of a successful new product built to be a “good value” was a spectacularly successful car developed at Ford Motor Company. Five decades ago, Ford regained its footing by building the first sports car to sell at a price point that middle-class people could afford. From an engineering perspective, it was not the most technically advanced. From the customers’ perspective, it represented a better value than anything else in the market. From a sales and profit perspective, it was one of the most successful car launches in history and continues to sell today in its sixth generation.

In the early 1960s, America was young, confident, and in love with sports cars. Many popular songs of the era were odes to those cars. Unfortunately for Ford, the cars arousing the greatest passion were made by other auto manufacturers. Hoping to remedy this situation, Ford set out to build a sports car that would tempt buyers to its showrooms.

Had Ford followed the traditional approach for developing a new car, management would have begun the process by sending a memo to the design department, instructing it to develop a sports car that would top the competition. Each designer would then have drawn on individual preconceptions of what makes a good sports car in order to design bodies, suspensions, and engines that would be better. In a few weeks, management would have reviewed the designs and picked out the best prospects. Next, management would have turned those designs over to the marketing research department. Researchers would have asked potential customers which they preferred and whether they liked Ford's designs better than the competition's, given prices that would cover their costs and yield the desired rate of return. The best choice would ultimately have been built and would have evoked the adoration of many, but it would have been purchased by only the few who could have afforded it.

Fortunately, Ford had a better idea. Unlike at other companies, the leading manager in charge of the project was not an expert in finance, accounting, or production. He was a marketer. So Ford did not begin looking for a new car in the design department. The company began by researching what customers wanted. Ford found that a large and growing share of the auto market longed for a sports car, but that most people could not afford one. Ford also learned that most buyers did not really need much of what makes a "good" sports car to satisfy their desires. What they craved was not sports-car performance—requiring a costly engine, drive train, and suspension—but sports-car excitement—styling, bucket seats, vinyl trim, and fancy wheel covers. Nobody at the time was selling excitement at a price that most customers could afford: Less than \$2,500.

The challenge for Ford was to design a car that looked sufficiently sporty to satisfy most buyers, but without the costly mechanical elements of a sports car that drove its price out of reach. To meet that challenge, Ford built its sports car with the mechanical workings of an existing economy car, the Falcon. Many hard-core sports-car enthusiasts, including some at Ford, were appalled. The car did not match the technical performance of some of its competitors, but it was what many people wanted, at a price they could afford.

In April 1964, Ford introduced its Mustang sports car at a base price of \$2,368. More Mustangs were sold in the first year than any other car Ford ever built. In just the first two years, net profits from the Mustang were \$1.1 billion in 1964 dollars.\* That was far more than any of Ford's competitors made selling their "good" sports cars, priced to cover costs and achieve a target rate of return.

Ford began with the customers, asking what they wanted and what they were willing to pay for it. Their response determined the price at which a car would have to sell. Only then did Ford attempt to develop a

product that could satisfy potential customers at a price they were willing to pay, while still permitting a substantial profit.

Costs played an essential role in Ford's strategy, which determined in part what Ford's product would look like. Cost considerations determined what attributes of a sports car the Mustang could include and what it could not, while still leaving Ford with a profit. For what they would pay, customers could not afford everything they might have liked. At \$2,368, however, what they got in the Mustang was a better value.

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\* Lee Iacocca (with William Novak), *Iacocca: An Autobiography* (Toronto: Bantam Books, 1984), p. 74.

In the last two decades, designing product and service offers that can drive sales growth at profitable prices has gone in the past two decades from being unusual to being the goal at most successful companies.<sup>15</sup> From Marriott to Boeing, from medical technology to automobiles, profit-leading companies now think about what market segment they want a new product to serve, determine the benefits those potential customers seek, and establish target prices those customers can be convinced to pay. Value-based companies challenge their engineers to develop products and services that can be produced at a cost low enough to make serving that market segment profitable at the target prices. The first companies to successfully implement such a strategy in an industry gain a huge market advantage. The laggards eventually must learn how to manage value just to survive.

The key to creating good value is first to estimate how much value different combinations of benefits could represent to customers, which is normally the responsibility of marketing or market research. In Chapter 2, we define more clearly what we mean by "value" and describe ways to estimate it.

## VALUE COMMUNICATION

Understanding the value your products create for customers can still result in poor sales unless customers recognize the value they are obtaining. A successful pricing strategy must justify the prices charged in terms of the value of the benefits provided. Developing price and value communications is one of the most challenging tasks for marketers because of the wide variety of product types and communication vehicles.

While much of this book focuses on how to create and measure tangible economic benefits, customers are rarely the rational economic actors portrayed in traditional economic theory. An exploding field called behavioral economics has documented a host of anomalies in consumer decision-making that run counter to the traditional economic principle of utility maximization. For example, community-held norms around fairness can limit the price a pharmaceutical firm can charge, even if the drug is a life-saver with no viable alternatives. Buyers also use mental shortcuts when making decisions, often by looking for analogous products to evaluate relative value. For this reason, many consumers view a \$30 bottle of wine at a restaurant as a bargain if the other wines on the menu are priced higher, yet the same \$30 bottle will feel expensive if surrounded by \$20 alternatives.

As a result of these anomalies, we must realize that customer responses to price are based on more than a rational calculation of value. Rather, customers evaluate the price in terms of the entire purchase situation. Thus, one aspect of pricing strategy is the presentation of prices in ways that will influence perceptions to the seller's benefit. Moreover, when buyers do perceive prices and purchase situations accurately, they often do not evaluate them perfectly rationally. That is not to say that buyers commonly process prices irrationally, but rather that they conserve their time and mental capacity by using imperfect, but convenient decision rules. A marketer who understands these decision rules can often present products in ways that lead buyers to evaluate them more favorably.

In some instances, marketers might employ traditional advertising media to convey their differential value, as was the case with the now famous "I am a Mac" ads created by Apple which ran from 2006 to 2009. The ads, featuring the actors Justin Long posing as a Mac® and John Hodgman as a PC (Robert Webb in the US, and David Mitchell in the UK), highlighted common problems for PC owners not faced by Mac owners. They are credited with helping grow Mac sales by an average 14.5 percent CAGR from 2005 through 2015, significantly above industry average.<sup>16</sup> In other instances, value messages are communicated directly during the sales process with the aid of illustrations of value experienced by customers within a market segment or with the aid of a spreadsheet model to quantify the value of an offering to a particular customer.

The content of value messages will vary depending on the type of product and the context of the purchase. The messaging approach for frequently purchased search goods such as laundry detergent or personal care items will often focus on very specific points of differentiation to help customers make comparisons between alternatives. In contrast, messaging for more complex experience goods, such as services or vacations, will deemphasize specific points of differentiation in favor of creating assurances that the offering will deliver on its value proposition if purchased. For example, when Noosa International, an operator of resorts in Queensland, Australia, experienced a decline in tourism after unseasonably rainy weather, they devised a "Rainy Weather Rebate" that offered a 20 percent discount on hotel accommodations should it rain during a customer's vacation.<sup>17</sup> Similarly, the content of value messages must account for whether the benefits are psychological or monetary in nature. As we explain in Chapter 3, marketers should be explicit about the quantified worth of the benefits for monetary value and implicit about the quantified worth of psychological benefits.

Price and value messages must also be adapted for the customer's purchase context. When Samsung, a global leader in cellular phone sets, develops its messaging for its Galaxy S phones, it must adapt the message depending on whether the customer is a new cell phone user or is a technophile who enjoys keeping up with the latest technology. Samsung must also adapt its messages depending on where the customer is in their buying process. When customers are at the information search stage of the process, the value communication goal is to make the most differentiated (and value-creating) features salient for the customer, so that he or she weighs these features heavily in the purchase decision. For Samsung, this means focusing on its phones' big screens and high data-transfer speeds. As the customer moves through the purchase

process to the fulfillment stage, the nature of messaging shifts from value to price as marketers try to frame their prices in the most favorable way possible. It is not an accident when a cellular provider describes its price in terms of pennies a day rather than one flat fee. Research has shown that reframing prices in smaller units that are more easily compared with the flow of benefits can significantly reduce customer price sensitivity.<sup>18</sup>

As these examples illustrate, there are many factors to consider when creating price and value communications. Ultimately, the marketer's goal is to get the right message, to the right person, at the right point in the buying process.

## PRICE STRUCTURE

Once you understand how value is created and can be communicated for different customer segments, the next choice required for a pricing strategy is to select a way to monetize that value into revenue. We call the output of this process a price structure and we cover the topic in depth in Chapter 4. The most natural price structure is price per unit (for example, dollars per ton or euros per liter). This is perfectly adequate for commodity products and services. The purpose of more complicated price structures is to reflect differences in value created, or ability to pay for it, from different customer or application segments.

An airline seat, for example, is much more valuable for a business traveler who needs to meet a client at a particular place and time than it is for a pleasure traveler for whom different destinations, different days of travel, or even non-travel related forms of recreation are viable alternatives. Airline pricers have long employed complex price structures that enable them to maximize the revenue they can earn from these different types of customers, who may be sitting next to each other on the same flight. On Monday morning or Friday afternoon, they can fill their planes mostly with business passengers paying full coach prices, but they are likely to be left with many empty seats at those prices on Tuesday, Wednesday, and Thursday. While they could just cut their price per seat to fill seats at those "off-peak" times, they then would end up giving business passengers unnecessary discounts as well. To attract more price-sensitive pleasure travelers without discounting to business travelers, they create segmented price structures so that most passengers pay a price aligned with the value they place on having a seat.

On the Tuesday morning when this was written, you could fly from Boston to Los Angeles and return two days later for as little as \$324—but with a non-refundable ticket, a \$100 charge for changes, a \$15 checked baggage charge each way, and low priority for rebooking if flights are disrupted by weather or mechanical problems. For \$514 you could get the very same seats on the very same flights, but with a refundable, changeable ticket and high priority rebooking in case of disruption—all things likely to be highly valued by a business traveler but barely missed by a pleasure traveler. Similarly, you could pay \$934 for first-class roundtrip travel with a non-cancellable ticket and \$150 change fee. Totally flexible and cancellable first-class travel would cost you \$1,901. With these different options, the airlines maximize the revenue from each flight by limiting the seats available at the discounted, non-cancellable prices to a number that they project could not be sold in the higher fare classes.<sup>19</sup>

More recently, more airline price structures have been designed to discourage behaviors that make some customers more costly to serve than others. The European carrier Ryanair has taken the lead in discounting ticket prices to levels previously unseen and then charging for everything else. If you don't print out your boarding pass before arriving at the airport, be prepared to pay Ryanair an extra €5 to check in. Want to check a bag? Add €10. Want to take a baby on your lap? €20. Want to take the baby's car seat and stroller along? €20 each. To board the plane near the front of the line will cost you €3. Of course, you will pay for any food or drinks, but if you are short on cash you might be well advised to avoid them. The CEO recently reiterated his plan to charge for using the on-board lavatories on short flights, arguing that "if we can get rid of two of the three toilets on a 737, we can add an extra six seats."<sup>20</sup> Do you think this is pushing price structure complexity so far that it will drive away customers? We thought so. But consider that in less than a decade Ryanair rose to first place among European airlines and as of this writing continues to lead in passengers carried, in revenue growth, and in market capitalization.<sup>21</sup>

## PRICING POLICY

Ultimately, the success of a pricing strategy depends upon customers being willing to pay the price you charge. The rationale for value-based pricing is that a customer's relative willingness-to-pay for one product versus another should track closely with differences in the relative value of those products. When customers become increasingly resistant to whatever price a firm asks, most managers would draw one of three conclusions: That the product is not offering as much value as expected, that customers do not understand the value, or that the price is too high relative to the value. But there is another possible and very common cause of price resistance. Customers sometimes decline to pay prices that represent good value simply because they have learned that they can obtain even better prices by exploiting the sellers' reactive pricing process.

Many cable TV companies are now suffering from this problem. In order to attract new customers, or to get current customers to consolidate their phone, internet, and cable TV with the supplier, they offer heavily-discounted contracts for the first year (typically \$99 per month). After one year, they raise the rate by 20 percent or more to their regular prices. But these offers have now become so widely advertised by multiple suppliers that many savvy subscribers have learned that they can beat the system. At the end of one year, many simply threaten to switch after one year to a new supplier offering the same deal. To avoid the substantial cost to manage these conversions, these same companies empower their telephone sales reps to agree to waive, or at least to reduce substantially, the increase for customers who object and threaten to change suppliers. The result: Even larger numbers of customers now threaten to change suppliers when their prices increase. Thus, a program that was designed to induce people to become loyal customers has annually eroded the value of the customer base.

*Pricing policy* refers to rules or habits, either explicit or cultural, that determine how a company varies its prices when faced with factors other than value and cost to serve that threaten its ability to achieve its objectives. Good policies enable a company to achieve its short-term objectives without causing

customers, sales reps, and competitors to adapt their behavior in ways that undermine the volume or profitability of future sales. Poor pricing policies create incentives for end customers, sales reps, or channel partners to behave in ways that will undermine future sales or customers' willingness-to-pay. In the terminology of economics, good policies enable prices to change along the demand curve without changing expectations in ways that cause the demand elasticity to "shift" adversely for future purchases. Chapter 5 describes good pricing policies and will alert you to the hidden risks of poor but commonly practiced policies.

## PRICE SETTING

According to economic theory, setting prices is a straightforward exercise in which the marketer simply sets the price at the point on the demand curve where marginal revenues are equal to the marginal costs. As any experienced pricer knows, however, setting prices in the real world is seldom so simple. On the one hand, it is impossible to predict how revenues will change following a price change because of the uncertainty about how customers and competitors will respond. On the other hand, the accounting systems in most companies are not equipped to identify the relevant costs for pricing strategy decisions, often causing marketers to make unprofitable pricing decisions.

This uncertainty about marginal costs and revenues creates a dilemma for marketers trying to set profit-maximizing prices. How should they analyze pricing moves in the face of such uncertainty? There are many pricing tools and techniques in common use today such as conjoint analysis and optimization models that take uncertain inputs and provide seemingly certain price recommendations. While these tools are valuable aids to marketers (we show how to use them to maximum advantage in Chapter 6), they run the risk of creating a sense of false precision about the right price. There is no substitution for managerial experience and judgment when setting prices.

Price setting should be an iterative and cross-functional process that includes several key actions. The first action is to set appropriate pricing objectives, whether that means to use price to drive volume or to maximize margins. In 2008, as America was falling into a recession, McDonald's used penetration pricing to take significant market share from premium coffee shops during a time when customers were increasingly price sensitive. Once consumers tried McDonald's new premium coffees, they found that the taste was excellent, and many opted not to switch back.

The second action is to calculate price–volume trade-offs. In the case of a 10 percent price cut for a product with a 20 percent contribution margin would have to result in a 100 percent increase in sales volume to be profitable. The same price cut for a product with a 70 percent contribution margin would only require a 17 percent increase in sales to be profitable. We are frequently surprised by how many managers make unfortunate pricing decisions because they do not understand how to make and use basic breakeven sales change calculations to evaluate pricing decisions.

Once the price–volume trade-offs are made explicit for a particular pricing move, the next activity is to estimate the likely customer response by assessing the drivers of price sensitivity that are unrelated to value. Two coffee lovers might value a cup of premium coffee equally. Despite placing equal value on



the coffee, the retiree on a fixed income will be much more price sensitive than the working professional with substantial disposable income. Conversely, either of those individuals may be willing to pay the price at a premium coffee shop rather than purchase a much cheaper but equally good cup of coffee at an unbranded café nearby because the lower price at the unbranded café leads them to infer that its coffee is more likely to be of inferior quality.

The marketer's job is to estimate how price sensitivity varies across segments in order to better estimate the profit impact of a potential pricing move. There are different ways to accomplish this task across different types of markets. For example, we describe these tools and how to use them in Chapter 8.

## PRICE COMPETITION

The final set of strategic pricing choices that managers must make to maximize growth profitably involve dealing with price competition. We are dealing with it last because making decisions that affect competitive pricing is an ongoing part of price management. Generally, these decisions occur after one has figured out how to create differentiating features and services and to capture a share of their value in revenues. But in most markets, the largest portion of price is determined, not by value-in-use to the customer, but by competition.

The potential market value of a product or service is composed of two parts: Value that is the same as that offered by the competitive alternatives (*Reference Value*) and value that differentiates it from competitive alternatives (*Differentiating Value*). For example, when a new restaurant opens in a busy area, the competitive reference value is the prices already being charged for lunch by other restaurants nearby. However, some customers may not be deterred by a premium price if they value a unique style of food or particular location.

Managing price competition involves influencing the reference value. In some markets, the reference value can be taken as given, determined by market supply and demand, and so requires no management attention except to adjust prices whenever the reference value changes. Even a large oil refinery selling wholesale gasoline and heating oil will command such a small share of the market that it can take the market prices of undifferentiated alternatives as given when setting its own prices. Price competition becomes much more challenging, however, when a seller commands a large share of a market. This is because competitors are likely to react to whatever pricing decisions it makes. Even the owner of a single retail gas station or pharmacy in a local market with only one or two alternatives must generally expect that competitors will notice and react to changes in its prices, thus affecting the revenue impact of pricing decisions. Anytime that a firm has a large share of even a small market, the ability to anticipate and manage the dynamics of competition will become as important to its financial success as decisions about how to set prices that reflect its differential value.

Many successful companies have suffered huge dents in what was an otherwise smooth trajectory of profitable growth when they failed to anticipate and manage how competitors might react adversely to a pricing decision. In

the early 1990s, Alamo Rent A Car (now owned by Enterprise Holdings) was the most profitable (as a percentage of sales) rental car company in America, despite being only the fifth-largest. Its low-cost operating model enabled it to dominate an entire market segment: Leisure rentals for tour packages to places like Disney World in Florida and Disneyland in California. Within those markets, Alamo could essentially set its prices assuming that the prices of larger rental car competitors would remain unchanged. But Alamo's management was impatient for growth and had the cash to pursue it. Within the United States, a much larger and lucrative rental car segment was business travel originating at airports. Moreover, demand for cars at Alamo locations peaked during holiday periods when the demand from business travelers at airports peaked during non-holiday periods. Thus Alamo's management figured that if it could win even a small share of the business market by undercutting the rates of the market leaders, Hertz and Avis, Alamo could generate a lot of profitable growth.

That was not to be, for reasons that in retrospect were entirely predictable. As planned, Alamo began moving to on-airport locations beyond its core leisure markets and setting prices that undercut the market leaders. But, Alamo underestimated its own vulnerability. Hertz and Avis had previously shown little interest in serving tour groups which, since they arrive in waves, could create backlogs unacceptable to their valuable business clientele. But once Alamo began attacking their prime markets, it was bound to get their attention. Within two years, Hertz opened the largest car rental facility in the world in Alamo's most lucrative market—Orlando, Florida. While the long lines at Alamo created a profitable opportunity to earn commissions from selling people tickets to attractions, Hertz's 66 counters and luggage-transfer stations made the transfer from plane to rental car easier and faster for tourists with lots of stuff in tow. To fill this facility, Hertz began undercutting Alamo's deals with European tour operators, who proved much more willing to switch suppliers to save a few dollars per car than were Hertz's business customers that Alamo was trying to woo. That year, Alamo's profits fell into the red and its operations were sold the following year to another rental car company.<sup>22</sup>

The lesson here is not that a profitable company should not attempt to grow share. It is that companies must anticipate competitive reactions and avoid competing where they lack the capabilities necessary to profit despite those reactions. This is not to argue that underpricing the competition is never a successful strategy in the long run, but the conditions necessary to make it successful depend critically upon how competitors react to it. The goal of Chapter 7 is to provide guidelines for anticipating and influencing those reactions and integrating them into one's plan for strategic pricing.

## **CREATING A STRATEGIC PRICING CAPABILITY**

Over the past decade, pricing has risen in importance on the corporate agenda. Most top executives recognize the importance of price and value management for achieving profitable growth. Yet given this strategic importance, it is surprising to us how many firms continue to organize their activities so that pricing decisions are made by lower-level managers who lack

the skills, data, and authority to implement new pricing strategies that align with changes occurring across markets. This tactical orientation has financial consequences.

Our research has found that companies that adopted a value-based pricing strategy and built the organizational capabilities to implement it earned 24 percent higher profits than industry peers.<sup>23</sup> Yet in that same research, we found that a full 23 percent of marketing and sales managers did not understand their company's pricing strategy—or did not believe their company had a pricing strategy. This lack of awareness demonstrates the challenges involved when developing a capability for pricing strategy which requires input and coordination across functional areas including marketing, sales, capacity management, and finance.

A successful pricing strategy requires the support of three pillars: An effective organization, timely and accurate information, and appropriately motivated management. In many instances, it is neither desirable nor necessary for a company to have a large, centralized organization to set prices. What is required, however, is that everyone involved in pricing decisions understands their role in the process. So while a product manager might set a price, a centralized pricing organization might have the right to define a process for evaluating the impact of that price or to set a policy for when it can be offered, sales management and operations management might have the right to provide input on particular elements of the process, and senior management might have the right to veto the decision. Too often decision rights are not clearly specified, changing the pricing decision from a well-defined, value-driven process to an exercise in political power, as various functional areas vie to influence the offered price without necessarily considering overall profitability or strategy.

Pricing decision-makers require quality information. Once managers understand their role in the price-setting process, the first thing they generally ask for is more data and better tools. When one considers the data requirements for making organization-wide pricing decisions, this response is not surprising. To make informed pricing decisions, marketing managers need data on customer value and competitive pricing. Sales managers need data to support their value claims and defend price premiums. And financial managers need accurate cost data and volume data. Collecting these large volumes of data and distributing them throughout the organization is a daunting task that has led many companies to adopt price management systems that are integrated with their data warehouses and ensure that managers get only the information they need. While not every firm needs a dedicated system to manage pricing data, everyone must address the question of how to get the right information into the right manager's hands in a timely fashion if they hope to keep their pricing strategies aligned with changes occurring in their markets.

Successfully implementing a pricing strategy also requires a firm to motivate managers to engage in new behaviors that support the strategy. All too often, people are given incentives to act in ways that actually undermine the pricing strategy and reduce profitability. It is common for companies to send sales reps to training programs designed to help them sell on value, despite paying them solely to maximize volume. When sales reps or field sales managers are offered only revenue-based incentives, it is hard to imagine them fighting to defend a price premium if they think that doing so will increase their chances of losing the deal. However, incentives can be developed that encourage more profitable behaviors.

A senior salesperson we know was recently promoted to regional sales manager for an area in which discounting was rampant. He began his first meeting by sharing a ranking of sales reps by their price realization during the prior quarter. He invited the top two reps to describe how they did those deals so profitably and the bottom two reps to describe what went wrong. He then facilitated an open discussion among the 30 reps on how challenges like those faced by the bottom two reps could be managed better in the future. At the end of the meeting, he told them that this exercise would be repeated every quarter. One month into the subsequent quarter, sales reps were asking to see where they stood in the rankings, suggesting that they were highly motivated to engage in productive behaviors to avoid a low ranking before the next meeting.

Chapter 11 describes in more detail the structural elements that need to be built into an organization to enable it to adopt and implement strategic pricing effectively.

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## Summary

Pricing strategically has become essential to the success of business, reflecting the rise of global competition, the increase in information available to customers, and the accelerating pace of change in the products and services available in most markets. The simple, traditional models of cost-driven, customer-driven, or share-driven pricing can no longer sustain a profitable business in today's dynamic and open markets.

This chapter introduced the strategic pricing value cascade containing the six key elements of strategic pricing. Experience has taught us that achieving sustainable improvements to pricing performance requires ongoing evaluation of and adjustments to multiple elements of

the value cascade. Companies operating with a narrow view of what constitutes a pricing strategy miss this crucial point, leading to incomplete solutions and lower profits. Building a strategic pricing capability requires more than a common understanding of the elements of an effective strategy. It requires careful development of organizational structure, systems, individual skills, and ultimately, culture. These things represent the foundation upon which the strategic pricing value cascade rests and must be developed in concert with the pricing strategy. The first step toward strategic pricing is to understand each level of the cascade and how it supports those above it.

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## Economic Value

### The Guiding Force of Pricing Strategy

*Customers will not pay literally a penny more than the true value of the product.*  
Ron Johnson<sup>1</sup>

An estimate of value is to pricing what an estimate of location is to navigation. Just as it is necessary, when lacking a GPS, to measure angles of the moon, the sun, and stars relative to the horizon to determine one's location and the direction of a desired destination, it is necessary to understand what benefits drive value for customers in order to triangulate the way to a cost-effective value proposition. Understanding the values that different combinations of features and services could create for customers, and how the best combination might differ for different segments of customers, is essential for creating offers that will enable a company to grow profitably. This is true even when the goal is not to maximize value capture but to rely instead on low "value pricing" to attract customers. One must still understand which sources of value one can deliver cost effectively, and which are better left unsatisfied because cost would exceed value. Any value proposition that is both compelling and profitable is based on offering a better perceived value, regardless of whether it is priced high or low relative to the competition.

Of course, customers' perceptions of value can change as they get new information or consider a purchase within a different context. Value is not determined by the unchanging physical aspects of a product but by the ever-changing circumstances of the customer, just as the location of celestial points of navigation, although unchanging in the heavens, appear in different places relative to the boat at different times of the day or when sailing in different directions. When they do not appear as expected, a navigator needs to convince the pilot to change direction. Creating a profitable marketing strategy likewise requires understanding not only the value created, but also what causes customers' perceptions of that value to be aligned or misaligned with reality. Marketing can influence customers brand choices not only by changing the actual value offered relative to price, but also by changing the context from which customers perceive the value created and the fairness of the price.

Each element of the Value Cascade introduced in Chapter 1 plays a critical role in managing some aspect of the relationship between value and price. Strategic pricing involves creating differentiated offers that represent “good value” to customers, raising willingness-to-pay via value communication, creating price structures that reflect the differences in value to different users, and adopting pricing policies that lead customers to make purchase choices based upon value. In short, strategic pricing is largely about managing the relationship between value and price. In effect, what we call strategic pricing could as accurately be labeled strategic value management, since strategic pricing involves much more than optimizing prices.

At the time of this writing, Apple has enjoyed more than a decade of exceptional profitability and growth, not only because it created a stream of differentiated smartphones and priced them higher than competitors’ phones, but also because of decisions to manage both perception and delivery of value. Apple’s advertising to its target segments to communicate why its phones are worth a premium price, and its high level of customer support, especially in its dedicated Apple Stores®, is designed to give customers confidence that they too can achieve the benefits that the phone’s features promise to deliver. Apple avoids short-term promotional discounts that would lead people to wait for a deal before buying. And Apple offers different models designed to reflect value and ability to pay across different segments of customers. Apple’s financial success is not driven purely by a drive to create more and better technology, but by a sophisticated effort to manage perception and realization of the value that its technology can create for its customers.

In contrast, many firms fail to capture their fair share of value delivered because they do not understand how their products and services create benefits for their customers. They erroneously assume that merely adding features or improving performance will lead to profitable gains in price, volume, or both. But more and better features will not lead to greater profitability unless those features translate into more value, actual and perceived, for customers. To do that, a pricing strategist must first learn techniques for understanding and estimating value.

## THE ROLE OF VALUE IN PRICING

Among the most important techniques for pricing are those that help managers determine the value of their products and services. Marketers have long admonished companies to set prices that reflect value. Unfortunately, because value is often poorly defined, value-based pricing is sometimes rejected as impractical. Consequently, let’s begin by explaining what we mean by value when we refer to it as the guiding force that keeps the various elements of pricing aligned and moving in the same direction.

In common usage, the term *value* refers to the total savings or satisfaction that the customer receives from the product. Economists refer to this as *use value* or the *utility* gained from the product. On a hot summer day at the beach, the use value of something cold to drink is extremely high for many people—perhaps as high as \$10 for your favorite frosty beverage. That information is of little help, however, to a vendor trying to price cold drinks for thirsty sun worshippers, since few potential customers would be willing to pay such a price.



Why not? Because potential customers know that, except in rare situations, they don't have to pay a seller all that a product is really worth to them. They know that there are likely competing sellers who will give them a better deal, leaving them with extra money in their pockets, or what economists call a "consumer surplus." Perhaps customers believe from prior experience that, if they wait long enough another vendor will come along selling cold beverages at prices closer to what they have come to expect from their past experience. Or they may know that about half a mile up the beach there is a snack shop where frosty beverages cost only \$2. As a last resort, they could drive to a convenience store where they could buy an entire six-pack for only \$6. Consequently, thirsty sun worshippers will usually reject an unusually high price as "outrageous," even though the product is worth so much more to them than that price.

So what do marketers mean when they propose pricing to reflect value? The value that is key to developing effective pricing strategy is not use value, but is what economists call *exchange value* and we call *economic value*. This value is determined first and foremost by what the customers' alternatives are. Few people will pay \$5 for a cola, even when they value it at \$10, if they think the market offers alternatives at substantially lower prices.

Still, only a small segment of customers insists on always buying the lowest priced alternative. It is quite likely that many people would buy a cola at the beach for \$5, despite the availability of the same product for less at a snack shop or convenience store. By offering the product *at the beach* the vendor is pricing a *differentiated product offering* worth more than the available alternatives to some segments of the market. How much more depends on the value customers place on not having to drive to the convenience store. For some, that value is very high. They are willing to pay a lot for the convenience of not having to exert themselves. For more athletic types who wouldn't mind an excuse to jog to the store, the premium for convenience may be much less. To ensure the patronage of that segment, the beach vendor would be wise to differentiate his or her offering in some other way that this segment values highly.

Economic value comes in two forms: Monetary and psychological. Both of these are instrumental in shaping a customer's willingness-to-pay but require very different approaches to estimate them.

*Monetary value* represents the total cost savings or income enhancements that a customer accrues as a result of purchasing a product. Monetary value is the most important element for most business-to-business purchases. When a manufacturer buys high-speed switching equipment for its production line from ABB, a global electrical equipment manufacturer, it gets products with superior reliability that minimize power disruptions. For many of ABB's customers, the benefit of fewer power disruptions has high monetary value because it translates into tangible cost savings associated with avoiding plant shutdowns.

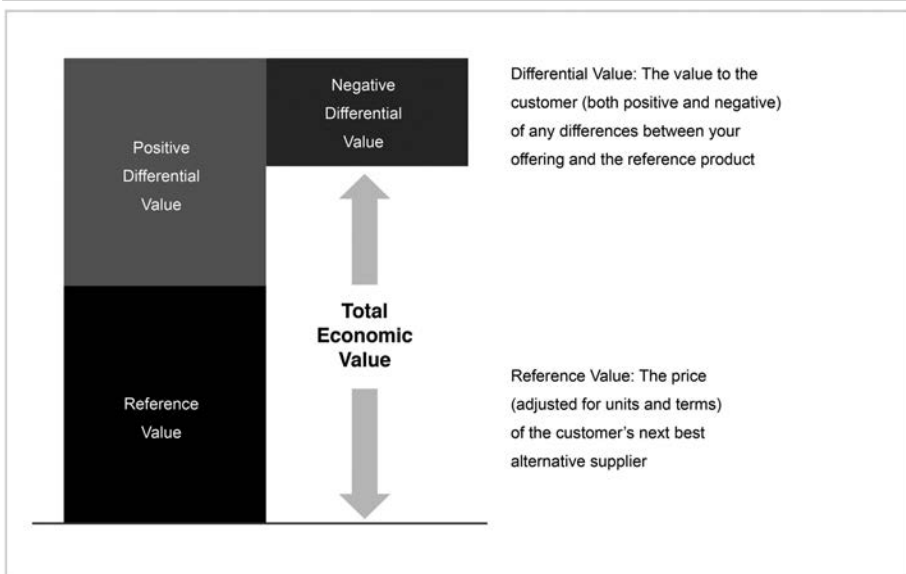
*Psychological value* refers to the many ways that a product creates innate satisfaction for the customer. A Rolex watch may not create any tangible monetary benefits for most customers, but a certain segment of watch wearers derives deep psychological benefit from the prestige and beauty associated with ownership to which they will ascribe some economic worth. As the Rolex example illustrates, consumer products often create more psychological than monetary value because they focus on creating satisfaction and pleasure.

However, some consumer products, such as a hybrid car, create both types of value, and it can be challenging to discern which is more important to the purchase decision. A consumer in the market for a new car might focus on the monetary value derived from the potential fuel savings by switching to a hybrid. Other customers will be motivated more by the psychological value derived from knowing that the hybrid is less damaging to the environment. Still others will gain satisfaction from the status associated with driving a trendy car. Regardless of the source of value, many buyers of hybrid cars are willing to pay a price premium over similar conventionally powered cars.

More formally, a product's total economic value is calculated as the price of the customer's best alternative (the reference value) plus the worth of whatever differentiates the offering from the alternative (the differentiation value). Differentiation value may have both positive and negative elements. We call this the Economic Value Estimation (EVE®) Model as illustrated in Exhibit 2-1. Total economic value is the maximum price that a smart shopper, fully informed about the market and seeking the best value, would pay. Not every buyer is a smart shopper, however. Often product and service users, and particularly purchasing agents buying on the users' behalf, may not recognize the actual economic value they receive from an offering. That is, the offering's perceived value to a buyer may fall short of the economic value if the buyer is uninformed. Therefore, it's critical that a company's sales presentations and marketing communications ensure that features likely to be important to the buyer—particularly competitively superior features—come to the buyer's attention. The need to communicate value is why the Toyota website contains easy-to-use calculators comparing fuel and emissions savings of the Prius hybrid car relative to other brands.<sup>2</sup>

One of the most critical factors driving customer choice and willingness-to-pay is the set of alternative products under consideration for purchase.

**EXHIBIT 2-1 Economic Value Estimation (EVE®) Model**



From the marketer's perspective, these products represent the *next-best competitive alternatives* or NBCA. Given the centrality of competitors' pricing in the purchase decision, economic value estimation begins by determining the price the competitor charges (not necessarily the NBCA's use value), which becomes the reference value in our model. For example, the reference value of a hotel room on a business trip is the price charged for the next-best hotel choice in town given the minimum lodging service level the traveler will accept. In the case of a new iPhone®, the reference value would be the price of the comparable Android or other 4G phone under consideration.

In some cases, the reference product or service is not necessarily a specific competitive offering, but a self-designed solution that buyers might use to achieve their objectives. For years, most accounting software suppliers assumed that buyers would compare their wares to traditional double-entry bookkeeping methods. Software vendors designed products to automate double-entry accounting and its rigorous debit and credit data entry requirements. Intuit, however, learned that double-entry methods were the wrong reference process for the two-thirds of small-business bookkeepers who used their own simpler cash-based accounting solutions. Working closely with those customers to understand their need for simplicity, Intuit created QuickBooks, which outsold competitors in the small-business market because it automated those simpler approaches.<sup>3</sup>

Differentiation value is the net benefits that your product or service delivers to customers over and above those provided by the competitive reference product. Our soft drink vendor strolling right up to the customer's beach blanket provides convenience compared to a distant refreshment stand. The traveler's hotel of choice provides a free breakfast and free cocktail hour not available at the next-best hotel. Competing products in a category likely provide many sources of differentiation value. It's important that an effective value estimation concentrate on those value sources having the most differentiation "bang for the buck" for a customer or customer market segment. Whereas a free breakfast may not be an important value driver for a business executive on an expense account, it could be a crucial factor for a traveler booking a hotel for a family vacation. The degree to which a supplier differentiates its offer in terms of those needs will have the greatest impact on the price the marketer can successfully charge above the reference value.

## HOW TO ESTIMATE ECONOMIC VALUE

Marketers have historically invested considerable effort to develop effective value propositions to represent their company and products. And few would argue that an effective value proposition, a concise statement of customer benefits, is an essential input to brand building and sales conversations. But a general statement of value is insufficient input for pricing decisions because it lacks the detail and quantification needed to shape strategy. In this section, we describe techniques that can be used to develop quantified estimates of customer value that, in turn, can be used to help set more profitable prices. We start with a discussion of how to collect and analyze competitive reference prices. Then we describe two approaches for quantifying monetary and psychological value and illustrate them with detailed examples.

## Competitive Reference Prices

Conceptually, identifying the next-best competitive alternative is simply the answer to, *“If I, the seller, did not exist, what would my customer do?”* Yet the work of identifying the next-best competitive alternative and gathering accurate reference prices offers a number of challenges that often trip up pricing strategists.

In some cases, marketers may have a myopic view of their markets. One of the authors recalls the first consulting project he served on where the client, a manufacturer of uniforms, thought they had an 85 percent market share. However, rudimentary market research quickly revealed that customers considered competitive offerings not just from other uniform manufacturers, but anyone who sold clothing such as department stores and discounters. Consequently, when viewed against this larger backdrop of potential uniform vendors, we found that the client only had a 35 percent share of the market and they were shocked to learn that they were missing many more sales opportunities than they had originally thought.

In other cases, there may not be just one competing product; instead, customers might construct a basket of products and services as a viable alternative. The “triple play” offered by communications companies such as Comcast and Verizon gives price allowances to consumers who choose one vendor for phone, internet connection and cable television service. Satellite TV companies can’t offer this same bundle because of technical and regulatory limitations. Determining the reference price for these customers requires some analysis to estimate an aggregate price for a comparable basket of goods.

Finally, in some cases the biggest source of competition may simply be customer apathy or doing nothing. For a seller of additives that allows concrete to cure more effectively in cold conditions, for example, the biggest source of competition might not be an alternate additive manufacturer. Rather, the biggest competitive challenge may simply be getting the builder to realize that he needs to use an additive in cold weather applications.

Once the competitive alternative has been identified, the next challenge is to establish the competitive reference price, which requires gathering accurate price data and ensuring that it is comparable to the pricing for your product. You must ensure that competitive prices are measured in terms familiar to customers in the segment (for example, price per pound, price per hour) and are stated in the same units as your product. In some product markets such as CPG automotive and apparel, competitive prices as well as discount and incentive data are readily available through data services such as IRI, Urban Science, or Nielsen. In addition, there are many price comparison tools available today from vendors like Google Shopping, Nextag, Price Grabber, among others, that allow users to quickly scan for competitive price points. In other categories, however, competitive prices are more difficult to obtain because of industry-wide practices of unpublished prices or because prices are negotiated individually with customers. In these instances, marketers must be creative in finding secondary sources of information by using techniques like polling the sales organization or interviewing customers. Secondary price data of this sort will invariably contain some bias and be less reliable than primary data obtained directly at that point of sale. Generally, though, it is possible to take imperfect competitive price data and treat it so that it becomes useful to a value estimation exercise.

Customers are a valuable information resource. One of the more effective ways to get competitive price information is to take advantage of the customers who call your customer service support line asking whether you are willing to match a competitive price. It is very easy for the customer service representative to ask a few simple questions—what is the competitive brand or product and its price—and record that information. While the data will not be entirely accurate due to gamesmanship by customers, over time enough data accumulates to offer a perspective on competitive price positions. Alternatively, favored customers can be good sources of competitive price information. Those who are loyal to the company, perhaps because of its quality or good service, do not want their competitors to get lower prices from anyone else. Consequently they will warn the company when a competitor issues new price sheets or when they hear that someone is discounting.

Exhibits 2-2 and 2-3 provide an illustration of how secondary price data can be normalized for use in a value estimation. In this example, a technology manufacturer in North America collected data as part of a competitive strategy assessment. When the data in Exhibit 2-2 was examined for use in a value estimation exercise, it seemed there was little coherence to how competitors were setting prices. After seeing the raw data, one of the product managers noted that his suspicions were confirmed: Competitors were completely irrational in their pricing! Closer examination, however, revealed that much

**EXHIBIT 2-2** Non-Normalized Reference Price Data

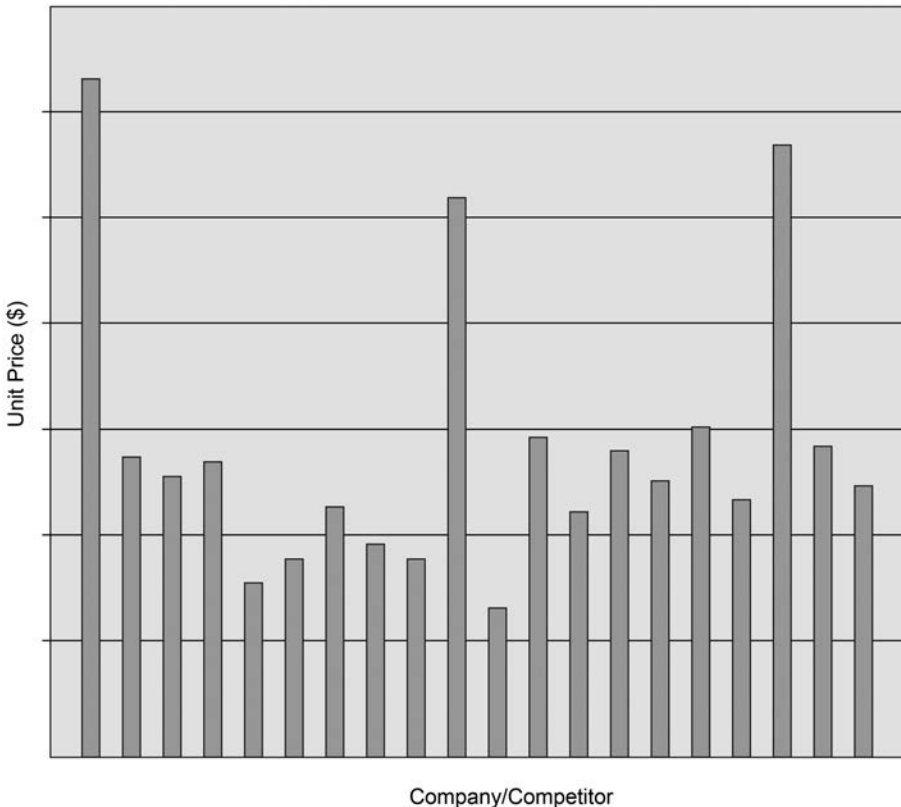
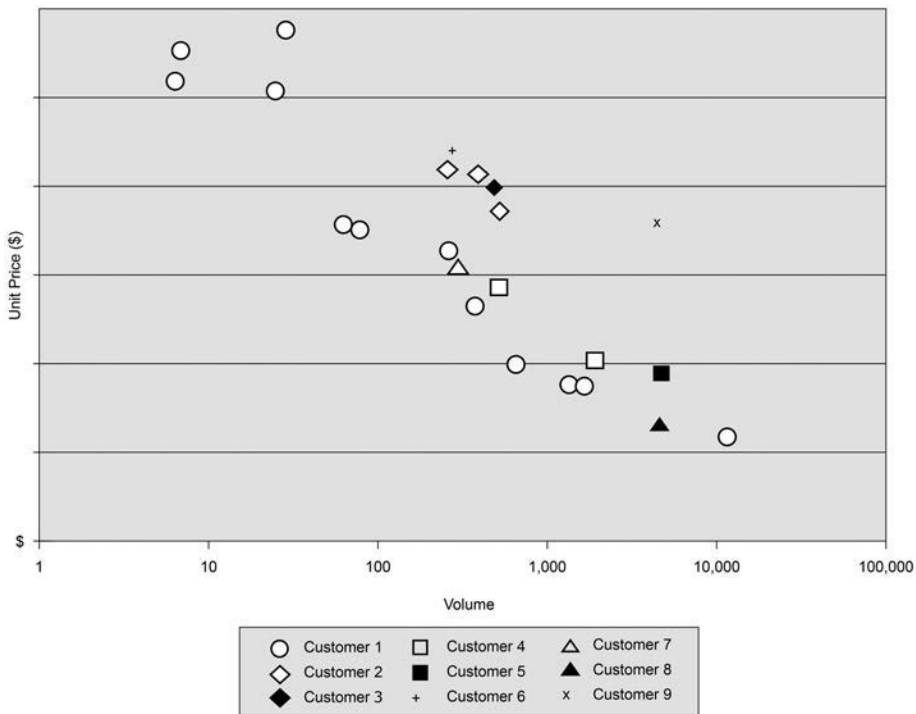


EXHIBIT 2-3 Normalized Reference Data



of the variation was due not to irrational pricing, but to differences in volume and service levels. After the pricing data was normalized for these factors, Exhibit 2-3 revealed much more consistent pricing behaviors that could be used as an input to the value estimation.

As this example illustrates, collecting reference prices is often more than just a data collection exercise. It requires some judgment and analysis to ensure that the data is ready to be incorporated into a value estimation calculation.

### Estimating Monetary Value

After determining the competitive reference prices, the next step in value estimation is to gain a detailed understanding of customer value drivers and translate that understanding into quantified estimates that can be used to support pricing decisions. The distinct characteristics of monetary and psychological value drivers require different approaches to quantify. As we noted earlier, monetary value drivers are tied to the customer's financial outcomes via tangible cost reductions or revenue increases. Since monetary value drivers are already quantitative, monetary value can be estimated using qualitative research techniques that allow for a rich understanding of the customer's business model or personal finances. In contrast, the intangible nature of psychological value drivers such as satisfaction, security, or brand value are not inherently quantifiable. Therefore, marketers often rely on sophisticated quantitative techniques such as conjoint analysis to quantify the worth of the

various elements of a product offering. (See Chapter 8 for a complete discussion of price experiments and other pricing research techniques.)

The first step in quantifying monetary value drivers is to understand how the product category affects the customer's costs and revenues. In consumer markets, this is a relatively straightforward exercise because end consumers usually have fewer monetary value drivers for a given product category. A hybrid car, for example, provides monetary benefits such as lower fuel and maintenance costs, as well as psychological benefits, such as conveying a concern for the environment, yet these do not affect customer finances. Typical of most end consumer monetary value drivers, fuel and maintenance costs can be quantified using readily available data; Toyota's online calculator (referenced earlier in this chapter) is a tool to help consumers estimate the financial benefits of purchasing one of their cars. Quantifying monetary value drivers in business markets is more challenging because of the complexity of most business operations and the need to understand fully how a product affects a customer's profitability. This complexity is why we start with a detailed assessment of the customer's business model to understand how our product contributes to the business customer's ability to create value for its own customers and to reduce its operating costs.

To illustrate this point, consider the example of Distributor Co., a technology distributor selling in a two-tier distribution system. Distributor Co. buys technology products such as servers, software and network components and resells them downstream to value-added resellers (hence the two-tier nature of the channel). The management team believed that all customers valued its technical service and support highly—a belief supported by high service usage across all segments. But an examination of its customers' business models revealed that this was not the case.

One large segment of customers operated under a "systems integrator" business model that involved sourcing components from Distributor Co. and then installing and maintaining those components as an integrated system in their customer's businesses. For these customers, high-quality technical support was essential to enable them to ensure proper installation and maintenance. In contrast, another segment operated with a "box-pusher" business model in which they might buy the exact same components purchased by a systems integrator, box them up, and resell them as a packaged solution for the customer to install. For the box-pushers, technical support was not essential to their business success because they relied on low prices, minimal inventory costs, and quick turnaround to make their business successful. Interestingly, the box-pushers consumed significant amounts of technical service even though it was not integral to their business model because Distributor Co. included it for free as part of its customer value proposition. When Distributor Co. started charging for technical support, usage by the box-pushers dropped dramatically because of the low monetary value in their business model. This pricing move improved profits in two ways: It reduced cost to serve for the box-pushers that didn't value technical support and increased margins earned from the systems integrators, for whom technical support was integral to their business model.

Exhibit 2-4 provides an example of value driver algorithms created for an equipment manufacturer. One note about these algorithms: They do not need to be complicated. In most cases, the algorithm will consist of simple formulas that approximately describe how value is created.

Once the mechanisms for value creation are understood in terms of the customer's business model, the next step is to collect specific data to develop quantified estimates. In-depth customer interviews are the best source of information. Very different from survey or even focus group methods, in-depth interviews probe the underlying economics of the customer's business model and your product's prospective role in it. The goal is to develop value driver algorithms, the formulas and calculations that estimate the differentiated monetary worth of each unit of product performance.

In-depth interviews require a different skill set than many qualitative research methods. Rather than striving for statistical precision, validity, and reliability, the price researcher seeks approximations about complex customer processes that might defy accurate, to-the-decimal-point calculations. It's critical, as a wise adage goes, to accept being approximately right lest you be precisely wrong in disregarding an important driver of value that seems too difficult to quantify. Therefore, the in-depth interview provides a foundation for developing value algorithms and collecting some initial data points to turn those algorithms into quantified estimates of customers' monetary value drivers.

It is also important to remember that not all points of differentiation are positive. There may be instances where a competitor does some things better—perhaps they are able to deliver more quickly or have a better warranty. These are important differentiators, the value of which should be calculated in the same manner as described above. When netting out the total value delivered, it is important to subtract the worth of these sources of negative differentiation.

**EXHIBIT 2-4** Examples of Value Driver Algorithms for Equipment Manufacturer

<b>Cost Drivers</b>	<b>Algorithm</b>
Reduction in mounting costs	(Current mounting costs) x (Percent reduction in mounting costs)
Reduction in procurement costs	(Reduction in Procurement costs)/ (Number of units ordered)
Reduction in defective board handling costs	((Reduced number of defective boards) x (Cost per board))/(Number of units ordered)
<b>Revenue Drivers</b>	<b>Algorithm</b>
New contracts	(Number of contractors as a percent of upgrade business) x (Percent of business a customer wins due to lower cost bids) x (Average contribution per contract)
Increased throughput	(Percent increase in throughput per measurement) x (Dollar contribution per measurement) x (Average number of measurements)



Once the differential value algorithms have been determined, the final step is to sum the reference value and the differentiation value to determine the total monetary value. There are several guidelines for estimating monetary value that will enable you to simplify the process and avoid common errors. First, consider only the value of the difference between your product and the next-best competitive alternative (NBCA) product. The value of any benefits that are the same as those delivered by the NBCA is already determined by competition and incorporated into the reference value. You can charge no more for it than the price of the NBCA product, regardless of its use value to the customer. Second, measure the differentiation value either as costs saved to achieve a particular level of benefit or as extra benefits achieved for an identical cost. Don't add both; that's double counting. Finally, do not assume that the percentage increase in value is simply proportional to the percentage increase in the effectiveness of your product. Although your part might last twice as long as a competitor, it does not follow that your value is only twice as large. An essential part, for which the competitor charges only \$10, might save tens or hundreds of thousands of dollars if it requires shutting down a customer's production line half as frequently to replace it. Would you charge only \$15 (a 50 percent premium) for such performance? Of course not!

### **Monetary Value Estimation: An Illustration**

GenetiCorp (a fictitious company) creates innovative products that accelerate the process of genetic testing. Monetary value estimation determines the financial impact that these breakthroughs actually deliver to different types of institutional customers.

One GenetiCorp product, Dyna-Test, synthesizes a complementary DNA strand from an existing DNA sample significantly reducing DNA molecule degradation and enhancing the precision of a DNA analysis. Dyna-Test preserves sample integrity much longer than does its primary competitor, EnSyn, thus improving DNA test yields and accuracy in a variety of applications. For example, criminal investigators use DNA to match hair, blood, or other human samples. Hospitals and medical professionals use DNA to diagnose diseases. Pharmaceutical manufacturers use DNA analyses to target genes susceptible to new drug treatments. In all applications, test failures can be costly. For criminal investigators, getting a "fuzzy picture" in a criminal investigation may produce a false-negative result, requiring a retest that might take several weeks. Retests for investigators are problematic because tissue sample sizes in criminal cases are very limited, often precluding repeated tests. Similarly, for a pharmaceutical company, getting a fuzzy picture when analyzing a DNA strand may cause drug researchers to miss their true target, the genetic portion of the DNA suspected of triggering a disease.

Unfortunately, when it first marketed Dyna-Test, GenetiCorp did not have a clue about its product's monetary value. It set prices based on a high markup over costs and then discounted those prices under pressure from purchasing organizations that could buy large volumes. To improve its profits, GenetiCorp decided to learn what its product is really worth to customers: Dyna-Test's reference value (the price of what the customer considers the best alternative product) plus its positive and negative differentiated values (the customer use value of the attributes that distinguish Dyna-Test from the next

best alternative). Buyers will pay no more than the reference value for features and benefits that are the same as the competing products. When multiple competitors offer customers the same benefits, those benefits are table stakes; a customer need not pay anything close to a product's worth because it can get the product elsewhere. A product earns a price premium over the reference value only for the extra performance—the differentiated value—it alone delivers. The sum total of reference and differentiated values is the monetary value estimate.

Dyna-Test has more than one monetary value driver because different types of users have different reference alternatives and receive different use value from Dyna-Test's distinguishing features. Let's examine the value estimation components in two different market segments, commercial researchers and non-industrial markets.

Commercial researchers in pharmaceutical and biotech firms most often consider EnSyn the best alternative to Dyna-Test. EnSyn sells for \$30 per test kit; that's the product category's reference value for such users. To determine Dyna-Test's differentiation value, GenetiCorp studied the five primary drivers of Dyna-Test's positive differentiation value among commercial researchers.

**VALUE DRIVER 1—YIELD OPPORTUNITY COSTS** Dyna-Test provides a greater yield of full-length cDNA, the compound DNA structures used for analysis, which is extremely valuable. With more full-length cDNA to work with, drug researchers can reduce the number of experiments needed to find the relevant portions of DNA, saving an average of a week's valuable research time, according to GenetiCorp's customer interviews.

GenetiCorp studied its pharmaceutical industry customers' business models and found the annual revenue from a successful commercial drug ranges from \$250 million to \$1 billion. GenetiCorp used a conservative estimate of \$400 million in revenue for one drug, which, with a 75 percent contribution margin, generated \$300 million in annual profit contribution. The cost of developing a typical drug was approximately \$590 million. These contribution and cost estimates yield an average net present value of \$41 million a year profit for a successful drug over a 17-year patent life. But it takes 500 target tests on average to finally identify the gene sequence leading to a successful new drug, so each target test eventually is worth \$82,000. With a 260-day work-year (approximately 2,100 hours), the value of a target test is \$39 per hour. If using Dyna-Test saves the researcher an additional week that can be devoted to another new drug, the value of those additional 40 hours is \$1,560.

**VALUE DRIVER 2—YIELD LABOR SAVINGS** Dyna-Test's cDNA yield superiority over EnSyn also produces more efficient laboratory staff work. Customer interviews indicated that using Dyna-Test saved 16 hours of processing labor compared to using EnSyn. Because laboratory personnel receive an average of \$24 per hour, labor savings from Dyna-Test are about \$384.

**VALUE DRIVER 3—QUALITY CONTROL LABOR SAVINGS** Prior to Dyna-Test, researchers frequently checked test-chemical batches for quality, sterility, and reproducibility, adding two hours to a test. However, Dyna-Test maintained uniform quality and performance over several years, assuring researchers that they could eliminate these quality-control checks. In interviews, customers

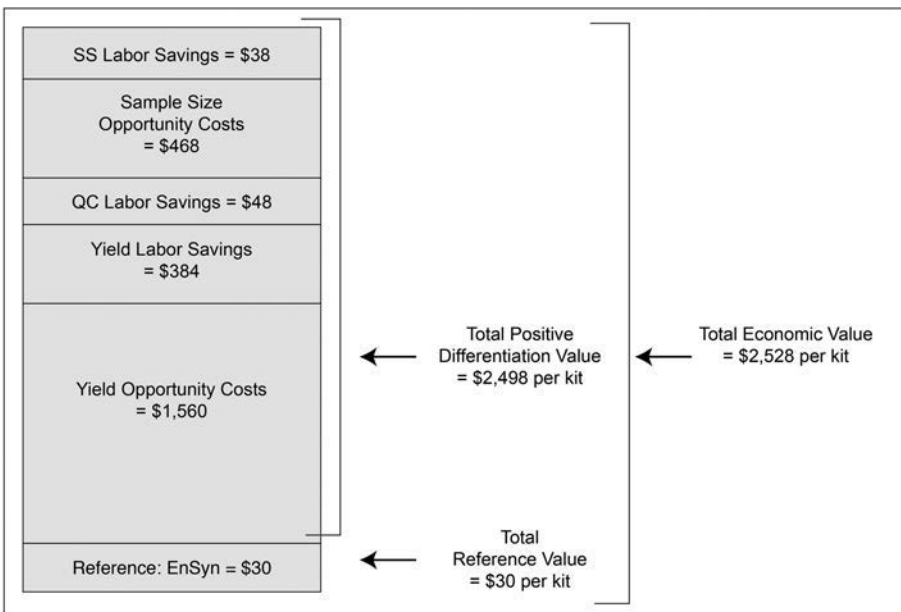
said “I am confident with Dyna-Test because it is a quality and tested product” or “Dyna-Test has been around long enough; you know it works. If someone says they ran the experiment with Dyna-Test it must be right.” High quality produced two hours of customer cost savings, totaling \$48.

**VALUE DRIVER 4—SAMPLE SIZE OPPORTUNITY COSTS** Using traditional methods, analyzing a DNA sample usually requires using some “starter” sample material at the outset. Often, the amount of original sample material is very small; gathering more on an emergency basis might take about three weeks of lost research time. But the Dyna-Test kit has a two-step system that reduces the need for starter samples, making available more testable original sample material and freeing researchers from the search for more. Using the value per week of Dyna-Test usage, GenetiCorp estimated the opportunity cost of searching for new material at \$4,680 ( $3 \times \$1,560$ ) per project. But because such emergency searches happened only about 10 percent of the time, the likely opportunity cost averages to \$468.

**VALUE DRIVER 5—SAMPLE SIZE LABOR SAVINGS** Similar to Driver 4, gathering additional emergency starter material requires researchers to repeat the entire analytical test—an extra 16 hours of research labor time—about 10 percent of the time. But with the Dyna-Test kit yielding more usable material and with labor costing \$24 per hour, the value of using Dyna-Test on this dimension is \$38 ( $\$24 \times 16 \times 0.1$ ).

In sum, for pharmaceutical and commercial biotechnology firms, the estimated total economic value of Dyna-Test is calculated by adding together the reference value of \$30, plus the estimates of differentiated value associated with each value driver, yielding a total estimated economic value of \$2,528.

**EXHIBIT 2-5** Monetary Value Estimation for Dyna-Test Industrial Buyers



In other words, purchasing the new Dyna-Test kit instead of the EnSyn kit would produce \$2,528 in cost reductions and new product profit gains for a commercial researcher. Exhibit 2-5 illustrates the monetary value estimation for that industrial buying segment.

Non-industrial markets such as academic institutions and government laboratories estimate economic value in a similar fashion. Their reference value is also the \$30 price of the EnSyn test kit; however, the most price sensitive among them simply have lab assistants—essentially free student labor—who make DNA test products from scratch. Their differentiating value drivers are similar to those of industrial customers, but modified to reflect the business model in this market, which has a different research environment and economic reward structure.

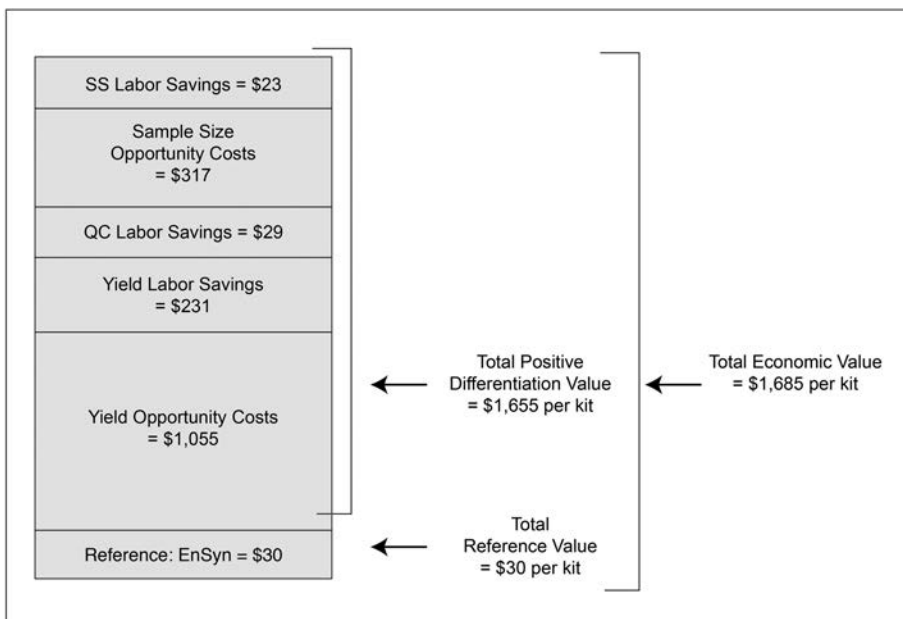
*Value Driver 1—Yield Opportunity Costs:* The yield opportunity cost avoided by using Dyna-Test is \$1,055, somewhat less than for commercial researchers because of the lower economic rewards from breakthroughs in primary research.

*Value Drivers 2, 3, 4, and 5:* The yield labor savings of \$231, quality control savings of \$29, sample size opportunity cost avoided of \$317, and sample size labor savings are also less because of the reduced cost of labor within university systems.

Thus, the estimated total economic value of Dyna-Test for academic laboratories is calculated by adding the reference value of \$30 plus the estimates for each value driver, yielding a total monetary value estimate of \$1,685.

Exhibit 2-6 illustrates the relationships.

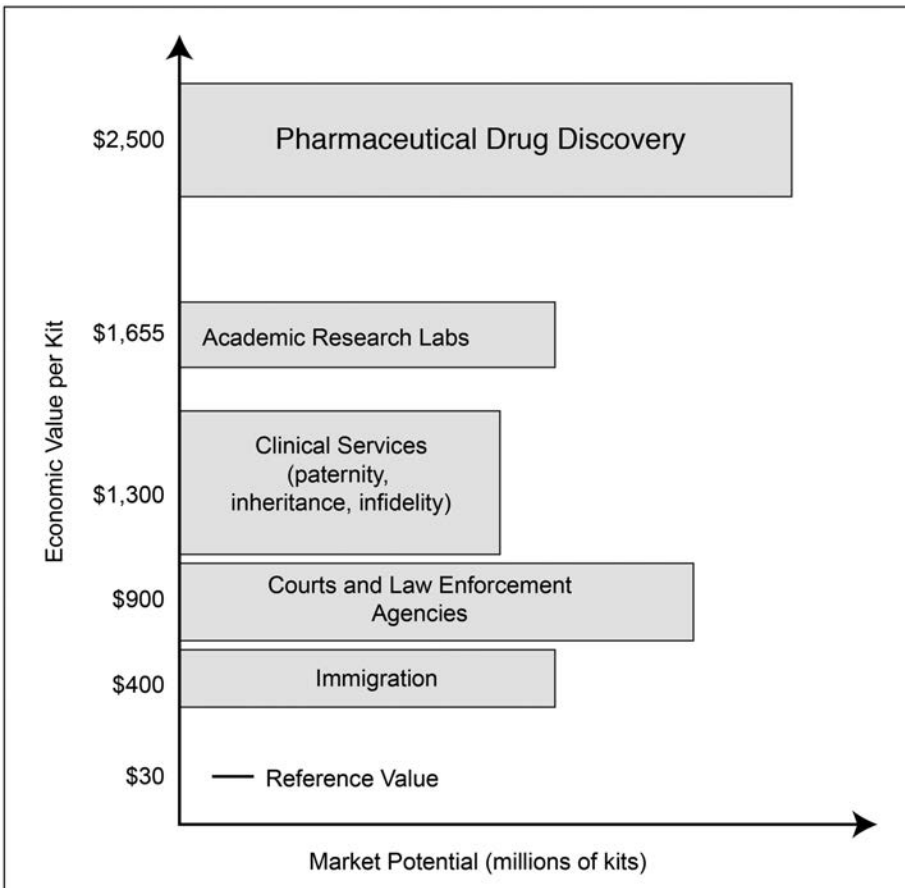
**EXHIBIT 2-6** Monetary Value Estimation for Dyna-Test Academic and Government Buyers



Remember that the economic value derived from monetary value estimation is not necessarily the perceived value that a buyer might actually place on the product. A customer might not know about a reference product and won't be influenced by its price. A buyer might be unsure of a product's differentiating attributes and may be unwilling to invest the time and expense to learn about them. If the product's price is small, the buyer may make an impulse purchase without really thinking about its economic value. Similarly, brand image and equally unquantifiable factors can influence price sensitivity, reducing the impact of economic value on the purchase decision, as in the case of Rolex watches. Ultimately, a product's market value is determined not only by the product's economic value, but also by the accuracy with which buyers perceive that value and by the importance they place on getting the most for their money.

This limitation of monetary value estimation is both a weakness and a strength. It is a weakness because economic value does not indicate the appropriate price to charge. It only estimates the maximum price a segment of buyers would pay if they fully recognized the product's value to them and were motivated to purchase. It is a strength, however, in that it indicates whether a poorly selling product is overpriced relative to its true value

**EXHIBIT 2-7 Monetary Value Profile for Dyna-Test**



or is under-promoted and unappreciated by the market. The only solution to the overpricing problem is to cut price. A better solution to the perception problem often is maintaining or even increasing price while aggressively educating the market. That is what GenetiCorp did with Dyna-Test. After previously cutting price to meet the demands of its apparently price-sensitive buyers, GenetiCorp raised prices two- to fivefold, at the same time launching an aggressive marketing campaign. While customer purchasing agents expressed dismay, sales continued growing because even the new prices represented but a small fraction of the value delivered. Profits increased significantly in the following year as purchasers learned about Dyna-Test's superior economic value to their institutions and accepted, sometimes grudgingly, the need to pay for that value.

GenetiCorp's experience also shows how value can vary among market segments. To determine a pricing strategy and policy for a product, you must determine the economic value delivered to all segments and the market size of each. With that information, you can develop an economic value profile of the entire market and determine which segments you can serve most profitably at which prices. Exhibit 2-7 profiles the economic value and market potential for each Dyna-Tech market segment.

Monetary value estimation is an especially effective sales tool when buyers facing extreme cost pressures are very price sensitive. For example, since health-care reimbursement systems began giving hospitals and doctors financial incentives to practice cost-effective medicine, pharmaceutical companies have been forced to add cost and performance evidence to their traditional claims about a drug's clinical effectiveness.<sup>4</sup>

### **Estimating Psychological Value**

Psychological value drivers such as satisfaction and security, by virtue of their subjective nature, do not lend themselves to estimation via qualitative research techniques like in-depth interviewing. Instead, pricing researchers must rely on a variety of quantitative techniques to estimate the worth of a product's differentiated features. The most widely used of these techniques is conjoint analysis—a technique developed in the late 1970s and early 1980s that can discern the hidden values that customers place on product features. The basic approach is to decompose a product into groups of features and then provide customers with a series of choices among various feature sets to understand which they prefer. In recent years, marketing researchers have extended the basic conjoint techniques so that virtually any type of consumer choice can be tested including choices involving different brands, budget constraints, and even purchasing environments.

Using conjoint analysis makes it possible to estimate the value of different feature sets in driving willingness-to-pay and, ultimately, the purchase decision. For example, a flat screen TV can be described in terms of attributes such as size of screen, number of pixels, and brightness. In a conjoint study, each of these attributes is divided into levels that can be tested. For instance, screen size might be broken into 36 inches, 42 inches, and 52 inches, as a means to estimate the relative value placed on greater screen size. Similarly, conjoint is a common approach to estimating brand value because it enables brand to be treated as any other attribute. Treating brand as another attribute in the

choice decision allows us to understand how customers might value a 36-inch Sony TV relative to a 42-inch Samsung model. Regardless of the attributes tested, the value estimates derived from a conjoint study can then be used as an input to a variety of pricing decisions.

### **Psychological Value Estimation: An Illustration**

Sport Co. (a fictitious company), a leading sporting goods manufacturer, has developed a revolutionary golf club named the “Big Drive.” The new design has led to significant increases in distance and accuracy for both beginning and advanced players. The question facing the management team was how to set prices given that there were many different types of golfers who would be potential customers. Beginning players found the club appealing because it was much more forgiving of poorly hit balls compared to traditional clubs. However, the management team believed that beginners would be relatively price sensitive and unwilling to pay a premium price for the technology.

More advanced players concerned about improving performance found the added distance of the Big Drive very appealing, and qualitative research indicated they would be willing to pay a substantial premium for the club. Knowing that there were multiple segments with different value drivers and willingness-to-pay created a quandary for Sport Co. management—how should they set prices to maximize profits?

The approach involved several steps. The first was to identify the different segments that might be interested in the new club and profile them based on actionable descriptors. This segmentation work uncovered four unique segments, as follows:

- **Innovators:** Frequent golfers who are highly focused on performance. They tend to have higher incomes and purchase clubs through their local pro shop after extensive consultation with the club pro and friends.
- **Value Seekers:** Casual players who play five to ten times during the season. They have moderate income and purchase from major sporting goods retailers. Value seekers are thrifty, but they will pay a premium for added performance.
- **Lost Players:** This is a large segment of occasional players who have largely drifted away from the game. They do not purchase significant amounts of golf equipment, but they can be drawn back to playing if a new innovation creates enough buzz to capture their attention.
- **Budget Shoppers:** These players range widely in ability and frequency of play, but they have budget constraints that limit the amount they can spend on equipment. They typically buy new equipment through discount stores and online outlets.

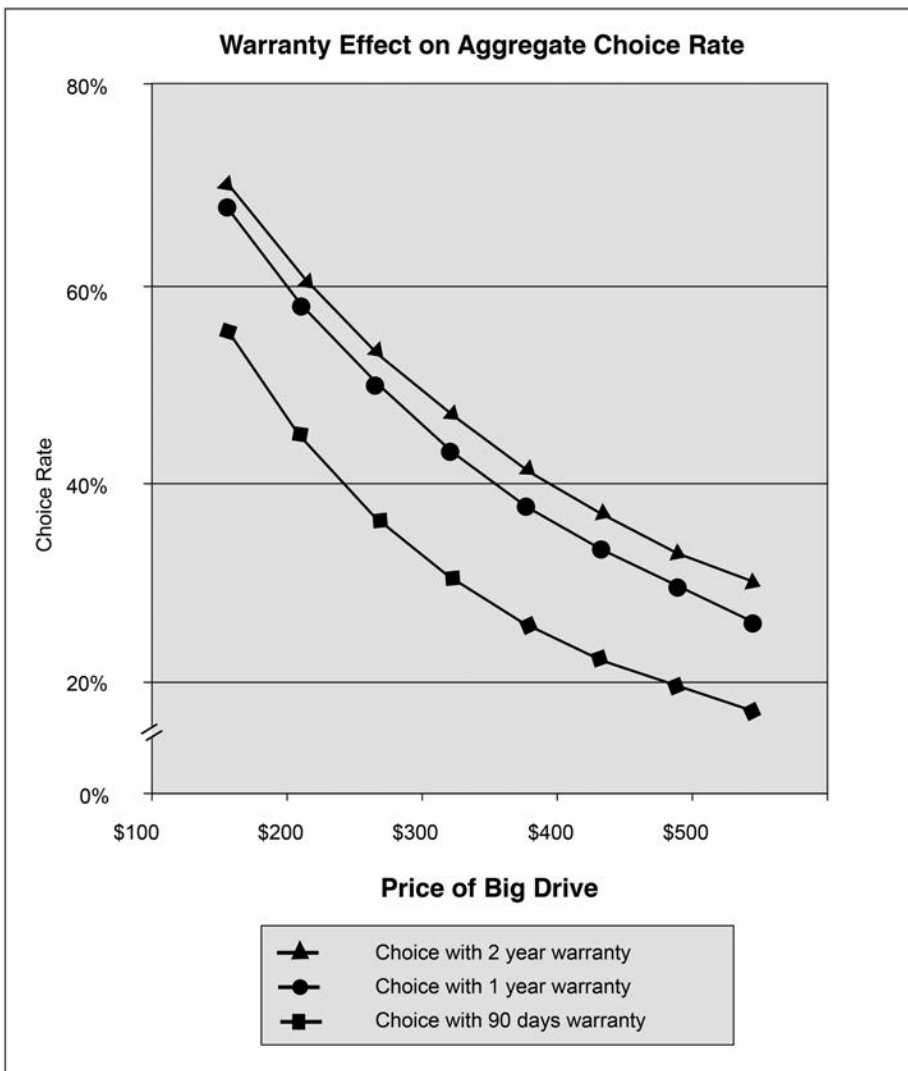
Having identified the key segments, the next step was to identify the attributes of the club that each segment found appealing so that they could be tested in the conjoint study. Of the extensive list of attributes that were tested, three were noted most commonly by all segments: Distance, straightness, and consistency. These attributes were then tested along with some other features of the offering such as warranty in a conjoint survey of 670 golfers.

The results of the conjoint study provided the needed inputs to develop a segmented pricing strategy. For example, the study provided actionable data

on consumer willingness-to-pay for various attributes such as a warranty, as shown in Exhibit 2-8. The initial hypothesis was that a warranty was not a key driver in the purchase decision; potential purchasers were more focused on the performance attributes of the club. The data revealed that the initial hypothesis was not correct, because consumers across all segments were willing to pay a premium for a one-year warranty. Interestingly, extending the warranty from one to two years did not lead to a similar increase in willingness-to-pay.

The results also provided key insights into the value derived by different market segments that, in turn, informed the channel pricing strategy. The data in Exhibit 2-9 shows the differences in willingness-to-pay between the Innovator and Budget Shopper segments based on the conjoint results. The profit-maximizing price for the innovators was \$425, which would lead to approximately 40,000 unit sales. As expected, the optimal price point for

**EXHIBIT 2-8** Impact of Warranty Length on Willingness-to-Pay



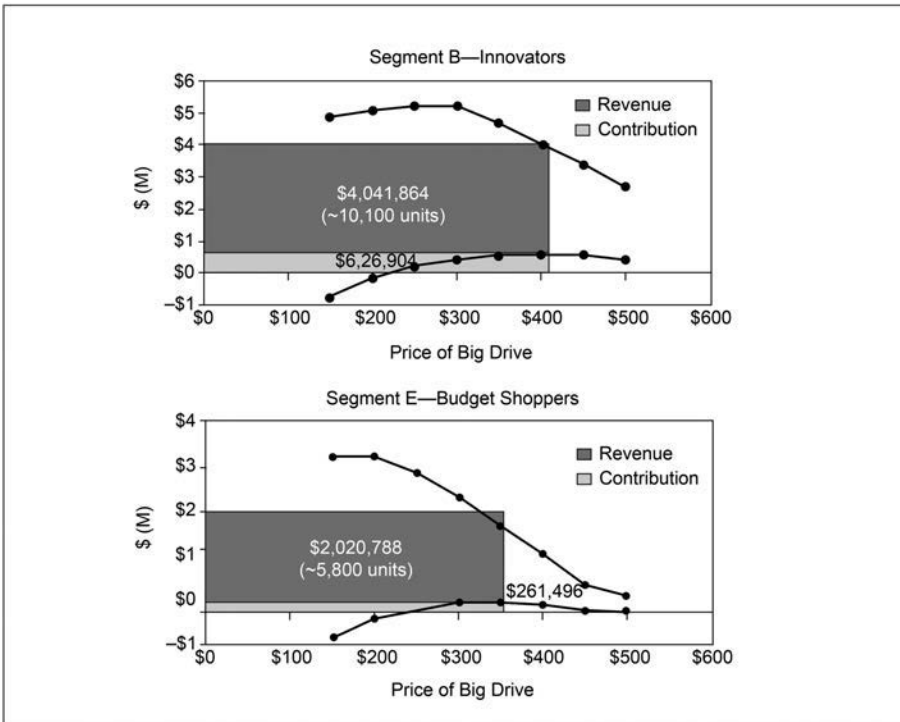


budget shoppers was considerably less at \$275. This difference in the value (and hence willingness-to-pay) created a dilemma for Sport Co.: If they set the optimal price for the innovator segment, they would lose many of the budget consumers, who represent nearly 30 percent of the market. This challenge of setting prices when value differs widely across segments is a common one that we will address in detail in Chapter 3. In this instance, the quantified value estimates of the different segments combined with a detailed understanding of segment buying patterns and value drivers enabled the team to make a solid business case for a two-tier pricing strategy. With some minor modifications to the club design, aesthetics, and brand, Sport Co. was able to introduce a lower-performance model aimed at budget shoppers and sold through discount retailers. At the same time, they introduced the premium model aimed at Innovators and Value Buyers to be sold at a higher price in pro shops and high-end sporting goods outlets.

It was possible to generate reliable estimates of psychological value for the “Big Drive” because the key benefits of distance and accuracy are ones with which golfers have prior experience. They know what it feels like to hit the best ball off the tee in their foursome and can imagine what they might pay for that feeling.

Where conjoint and other similar survey research techniques can fall short is when the differentiating benefits are innovative. The research subject in that case must guess what the benefits are and how valuable they might be. Most people, even those deeply familiar with the technology, are not good at inferring the benefits of innovation. In 1977, the founder and CEO of the world’s second-largest computer company at the time asserted publicly,

**EXHIBIT 2-9** Difference in Willingness-to-Pay and Market Potential by Segment



“There is no reason anyone would ever want a computer in their home.”<sup>5</sup> But Steve Jobs did imagine the benefits and set prices for the Apple computer that sparked the growth of the home computer industry.

As the GenetiCorp and Sport Co. examples illustrate, the approach and data used to estimate monetary and psychological values differ substantially, with each having some advantages over the other. While both approaches yield quantified value estimates that are essential to effective pricing strategy, the qualitative approach used for monetary value enables the price-setter to make an explicit linkage between a product’s differentiated features, the benefits those features create for customers and the value associated with each benefit. The importance of this feature–benefit–value linkage will become clear in later chapters where we discuss bundling and value communication choices. Quantitative approaches such as conjoint analysis are appealing because they enable the pricing researcher to perform a wide variety of statistical analyses that can be readily used to test different offering designs and competitive scenarios. In each case, however, they provide the pricing manager with a solid fact base from which to make more profitable pricing choices.

An additional note about building EVE<sup>®</sup> models: In some cases, the focal product may have net negative differentiation versus the next-best competing alternative. For example, consider the case of a manufacturer that is beginning to supply a generic equivalent of a food sweetener that is just coming off of patent protection. While the generic is equivalent on a molecular level, the branded product still has some significant advantages. It is produced locally which means that lead times are much faster and thus customers do not need to maintain as much buffer stock; it has an established brand name that enables customers to earn a small premium from consumers who recognize and value the brand; and the branded product has a better consistency that allows it to mix more easily in a production process. Relative to the branded incumbent, the generic has no positive differentiating attributes, only negative differentiators. The EVE<sup>®</sup> model works just the same as illustrated previously, except in this case the model will indicate the minimum discount needed to entice a buyer of the branded product to consider the generic alternative. The useful thing about the model is that in many cases, sellers, in the hopes of quickly overcoming a sales hurdle, will often discount their prices too much; the EVE<sup>®</sup> model provides useful guidance on how much of a discount is actually needed.

In addition, the EVE<sup>®</sup> model will often highlight deficiencies that are sometimes better addressed using non-price means. In the example of the generic supplier of a food sweetener mentioned above, long lead times due to foreign production may be more efficiently countered by stockpiling product in a local warehouse to enable response times that are equivalent to the domestic incumbent supplier.

### **The High Cost of Shortcuts**

When setting prices, there are no shortcuts for understanding the economic value received by the customer. Many companies, nonetheless, shortchange themselves by assuming that if their differentiated product is “x” percent more effective than the competition, then the product will be worth only “x” percent more in price. While that relationship makes sense superficially, closer examination reveals how wrong it is. If you had cancer and knew of a drug that was 50 percent more effective than the competition’s in curing your disease, would

you refuse to pay more than a 50 percent higher price? Of course not. Suppose you were planning to paint your house and discovered a paint sprayer that lets you finish the job in half the usual time—a doubling of your productivity. Would you pay no more than twice the price of a brush? Obviously not, unless you're some rare individual who can paint twice as fast with two brushes simultaneously. Otherwise, the value to a busy person of the painting time saved by the sprayer is much greater than the price of a second brush.

As these examples show, the value-based price premium one can charge is often much greater than the percentage increase in an offering's technical efficiency. The total economic value of a differentiated product is proportional to its technical efficiency only when a buyer can receive the benefits associated with a superior product simply by buying more of the reference product. In our example, that would be the case only if using 50 percent more of the competitive cancer drug or painting with two brushes at the same time would produce the same increase in efficiency as using the superior products. Because of this misunderstanding, many companies committed to value-based pricing have been misled into believing that they cannot price to capture their value if their ratio of price-to-use value would exceed that of their competitors.

### **The Problem with Customer Value Modeling**

At the center of marketers' misconceptions about pricing and value is the popular concept of customer value modeling (CVM), which emerged from the total quality management movement when companies tried to measure and deliver superior quality at a competitive price. Marketers and a variety of value consultants have applied CVM in many contexts, including early criteria for the Malcolm Baldrige National Quality Award, largely because it is easy to implement. CVM relies on customers' subjective judgments about price and product attribute performances. It assumes that customers seek to purchase the products that give them the greatest perceived benefit—which might be quantified in monetary terms, but need not be—per unit price. Avoiding the translation of relative attribute performance into hard-dollar estimates, CVM is analytically simpler than economic value estimation, particularly for pricing consumer products with their heavily psychological values.

The fact is, however, that CVM underestimates the value of the more differentiated products in a market and overestimates the value of the less differentiated products. CVM methods define value differently than economic value estimation. CVM rates each competitive supplier's relative strength on each product attribute, weighing each attribute by customer estimates of importance, according to customer and prospect surveys. Then CVM calculates the average relationship between perceived quality and price, creating what is variously called a "fair-value line," a "value equivalence line," "indifference line," or other term for the presumed linear relationship between price and perceived quality. A point on the line putatively indicates a "fair" balance of price for quality. For a given price, a product with less than fair perceived quality is disadvantaged and stands to lose market share, say CVM theorists, while a product offering more than fair quality will gain share. There are flaws in this thinking.

First, customers don't pay for average differential benefit estimates; they pay for the worth of the benefits they receive. That is, they mentally convert benefits into monetary terms so that they can judge how much more they should pay for the extra value received from a more expensive product. If it's worth more than the price premium charged, they buy it.

Second, CVM fails to distinguish between the value of common benefits that are priced as commodities and the value of the unique benefits associated with a differentiated offering. Total economic value—what the customer really gets from the offering in monetary and psychological terms—does not have a single linear relationship to price. One of the two components of economic value, the reference value, usually is much less than the use value of the benefits delivered by the reference product. The reference value is the price a customer pays for the next-best alternative offering—like the price of the second paintbrush, the price of the EnSyn DNA test kit, or the price of a soda at the refreshment stand. Benefits offered by more than one supplier become commodity benefits; customers can get them from more than one source. Competition among suppliers drives the price for those benefits below their use value, making the price-to-use value ratio of the reference product lower than one-to-one.

In contrast, differentiation value, the second component of total economic value in the EVE<sup>®</sup> model, is the extra use value a product delivers compared to the reference product. The differentiation value, expressed in monetary terms, is equivalent to the price premium the differentiated supplier could charge as a fair price. It's fair because the customer gets just what she's paying for in additional value, no more and no less. The price premium-to-differentiation value ratio is one-to-one. In other words, the relationship between price and economic value is a function of two different price-to-quality ratios, not the single average ratio hypothesized in a CVM model.

This difference is significant because the larger the proportion of differentiation value in a product's total economic value delivered, the more the truly fair price to the customer—the economic value estimation price—can exceed the CVM-hypothesized “fair-value line” price.<sup>6</sup> Pricing your highly differentiated product at the supposed “fair-value line” level will be hazardous to your bottom line!

## VALUE-BASED MARKET SEGMENTATION

Market segmentation is one of the most important tasks in marketing. Identifying and describing market subgroups in a way that guides marketing and sales decision-making makes the marketing and pricing process much more efficient and effective. For example, customers who are relatively price insensitive, costly to serve, and poorly served by competitors can be charged more than customers who are price sensitive, less costly to serve, and are served well by competitors. At many companies, however, segmentation strategy focuses on customer attributes that are not useful for pricing decisions, creating customer groupings that do not adequately describe differences in purchase motivations among customers and prospects, or classify them in a way that is meaningful for making pricing decisions.

Consultants and market researchers who offer segmentation-modeling methodologies abound. Often those plans are driven by statistical differences in personal demographics or company firmographics (customer size, standard industrial classification, and so forth). While the results seem clear and sometimes coincidentally differentiate buying motivations, those segmentations seldom assist pricing decisions, especially for setting different prices that maximize profit from different segments. More useful are value-based segmentation models that facilitate pricing commensurate with actual value perceived and delivered to customers. Only then can a marketer ensure that each different customer subgroup is paying the most profitable price that the marketer can charge. Charging the entire market a single price risks undercharging some segments, causing foregone profit to you, and overcharging others, costing you additional foregone profit since those customers buy from other suppliers.

Significant differences between value-based segmentation and other methods are especially critical for pricing. First, most segmentation criteria correlate poorly with different buyers' motivations to pay higher or lower prices. Both plumbers and personal-injury lawyers consider online advertising to be very important, for example. They advertise to attract customers who have an immediate, unexpected, and high-value need. Google could charge both groups the same advertising rates, but the lawyer can afford to pay more than the plumber because of the greater value of each legal client. Simply raising ad prices across the board would eventually price plumbers out of the market and into less expensive media leading to lower profits. But Google has developed an ingenious bidding mechanism that allows customers to pay whatever price reflects the value to them. The trade-off, of course, is that the lower you bid the less prominent your ad or webpage will be displayed. By enabling the customer to make price and value trade-offs via the bidding mechanism, Google has successfully aligned prices with value and improved the profitability of their advertising business.

Second, even needs-based segmentations give priority only to those differences that are important to the customer. They miss the other half of the story, those customer needs that have the greatest operational impact on the seller's costs to serve those needs. The seller's costs and constraints are also important to pricing decisions, as we will see below, because our goal is not just sales and market share, but profitability. Finally, the customer in-depth interviews required for value-based segmentations also uncover why customers find certain product benefits appealing—or would find them appealing were they sufficiently informed. Such knowledge reveals opportunities to develop new products and services and can reveal flawed strategies based on less comprehensive research.

That is a lesson International Harvester Company (IH), in a classic example, learned the hard way. For years, IH classified farmers according to surveys of farmer "benefit perceptions," particularly IH's equipment reliability compared to that of arch rival John Deere. Farmers consistently rated Deere equipment as more reliable, so IH invested heavily to ensure that an IH tractor could not possibly break down more frequently than a Deere tractor. Still, Deere kept leading the reliability rankings by a wide margin. IH marketers understood the true situation only when they conducted in-depth interviews. Asking farmers about repair problems revealed that what was important to farmers was the downtime caused by breakdowns. IH customers viewed a

breakdown as a big deal to be avoided because of the days of lost productivity waiting for repairs. Deere customers viewed Deere's equivalent reliability as much less of a problem because Deere's extensive, service-oriented dealer network stocked spare parts and offered loaner tractors, getting a farmer working again in less than a day. IH's benefit segmentation had missed the mark. A value segmentation would have revealed that Deere served a different segment of farmers—those driven by the value of a total-service solution, which perfectly fit Deere's strengths.

To conduct a value-based segmentation, we recommend a six-step process.

### **Step 1: Determine Basic Segmentation Criteria**

The goal of any market segmentation is to divide a market into subgroups whose members have common criteria that differentiate their buying behaviors. A simple example illustrates the concept. A business marketer of, say, an industrial grinding machine could segment customers in terms of their industries, their applications for which they use the marketer's product, or the total value they receive from the product. A segmentation done by industry using industrial classification criteria would not indicate, however, whether customers use the grinders in similar ways. A segmentation based on application criteria would account for different ways of using the grinders, but would not indicate if the grinder is more important to one segment's business model than to another's. Only a segmentation based on the value delivered by the grinder would reveal, for instance, that customers in one segment consider grinder use a small part of assembly line costs, while in another segment the grinder delivers much more value by performing a finishing step that allows the grinder buyer to earn a price premium from its customers. In our tractor marketing example, had IH chosen rapid service needs as its segmentation criterion, it would have seen that it could not match Deere's field service capabilities. Had IH done its homework, it would have realized that it needed to try and outweigh its service shortcomings with other offering attributes—which would be tough with farmers for whom downtime is very costly—or concentrate on other segments that put relatively more emphasis on attributes where IH excels.

Choosing appropriate segmentation criteria starts with a descriptive profile of the total market to identify obvious segments and differences among them. In consumer markets, basic demographics of age, gender, and income provide obvious discriminators. Enterprise firmographics such as revenue, industry, and number of employees clearly separate firms into nominally homogenous groups. Inputs for this basic analysis can include existing segmentation studies, industry databases, government statistics, and other secondary sources. Outputs include buying patterns, customer descriptions, a preliminary set of current customer needs, and a provisional list of unmet customer needs. You should be able to design first-pass segmentation maps based on those outputs. Along the way, check if those preliminary maps look sensible to salespeople and sales managers. Though your eventual pricing strategy will rely on value-based segmentation, communications and sales strategies are likely to be heavily dependent on those obvious customer characteristics on which media choices and sales territory assignments are based.

## **Step 2: Identify Discriminating Value Drivers**

Having preliminary segmentations in hand, you identify those value drivers—the purchase motivators—that vary the most among segments but which have more or less homogenous levels within segments. This allows you to zero in on what’s most important to each customer segment. The GenetiCorp example earlier in this chapter determined that segments classified by obvious firmographics—commercial and non-industrial research institutions—also differed on several cost-reduction and profit-enhancement value drivers. Never assume for pricing purposes that preliminary segmentations based on obvious criteria will coincidentally yield effective discrimination on value criteria. Commercial and non-industrial medical laboratories probably have similar needs, for instance, and derive similar value from an undifferentiated product such as laboratory glassware.

In-depth interviews probing how and why buyers choose among competitive suppliers provide the additional input required. Industry experts, distributors, and salespeople can provide supplemental information for double checking the value perception patterns revealed by the interviews. The outputs of this step include a number of useful building blocks for value-based market segmentation, including a list of value drivers ranked by their ability to discriminate among customers (statistical cluster analysis of quantitative data is a useful tool here), an explanation of why each driver adds value, and whether customers in each segment recognize that value. The list should also include the value the customer will receive if your product or service offering satisfies unmet needs.

## **Step 3: Determine Your Operational Constraints and Advantages**

In this step, you examine where you have operational advantages. Which value drivers can you deliver more efficiently and at lower cost than others? Also, which drivers are constrained by your resources and operations? Experience, capital spending plans, personnel capabilities, and overall company strategy are among the inputs to this step. Use the discipline of activity-based costing (a fascinating diagnosis of your own business, but a topic beyond the scope of this book) to build a customer behavior spectrum mapping your true costs serving different customers. Will some require more on-site service than others? Which have shorter decision-making cycles? Those factors contribute to customer profitability, value delivery, and the price you can charge for bundled and unbundled offering features. You should also examine competitive strengths and weaknesses on key drivers as closely as you can.

With these data, you can cross-reference and compare lists of customer needs served and unserved, the seller’s advantages and resource limitations, and competitors’ abilities. Where do you have sustainable competitive advantages, and where do rivals hold the upper hand? Which customers can you, therefore, better serve than can competitors, and which are likely to be beyond your reach, assuming that prospective customers are well informed?

## **Step 4: Create Primary and Secondary Segments**

This step combines what you’ve learned so far about how customer values differ and about your costs and constraints in serving different customers.

Unless you're comfortable with multivariate statistical analyses accounting for several value drivers simultaneously, you'll find it most convenient to segment your marketplace in multiple stages, value driver by value driver. The number of stages depends on the number of critical drivers that create substantial differences in value delivery among customer groups. In theory, your primary segmentation is based on the most important criterion differentiating your customers. Your secondary segmentation divides primary segments into distinct subgroups according to your second most important criterion. Your tertiary segmentation divides second segments based on the third most important criterion, and so on.

In practice, however, the deeper your successive segmentations, the more unmanageable the number of segments you identify. It doesn't make sense to split hairs by segmenting according to drivers with less than critical discriminating power. Minor differences among such sub-segments will have little impact on pricing policies.

Also, your primary segmentation should account for your company's capabilities and constraints as well as customer needs. A primary value segmentation that recognizes such a "strategic overlap" discriminates on what is likely to be the most important differentiator among customers: The needs that have the most impact on the seller's operational constraints and whether those needs can be satisfied profitably, if at all. Your secondary segmentation, therefore, will use the value driver that varies the most among the sub-segments within each primary segment.

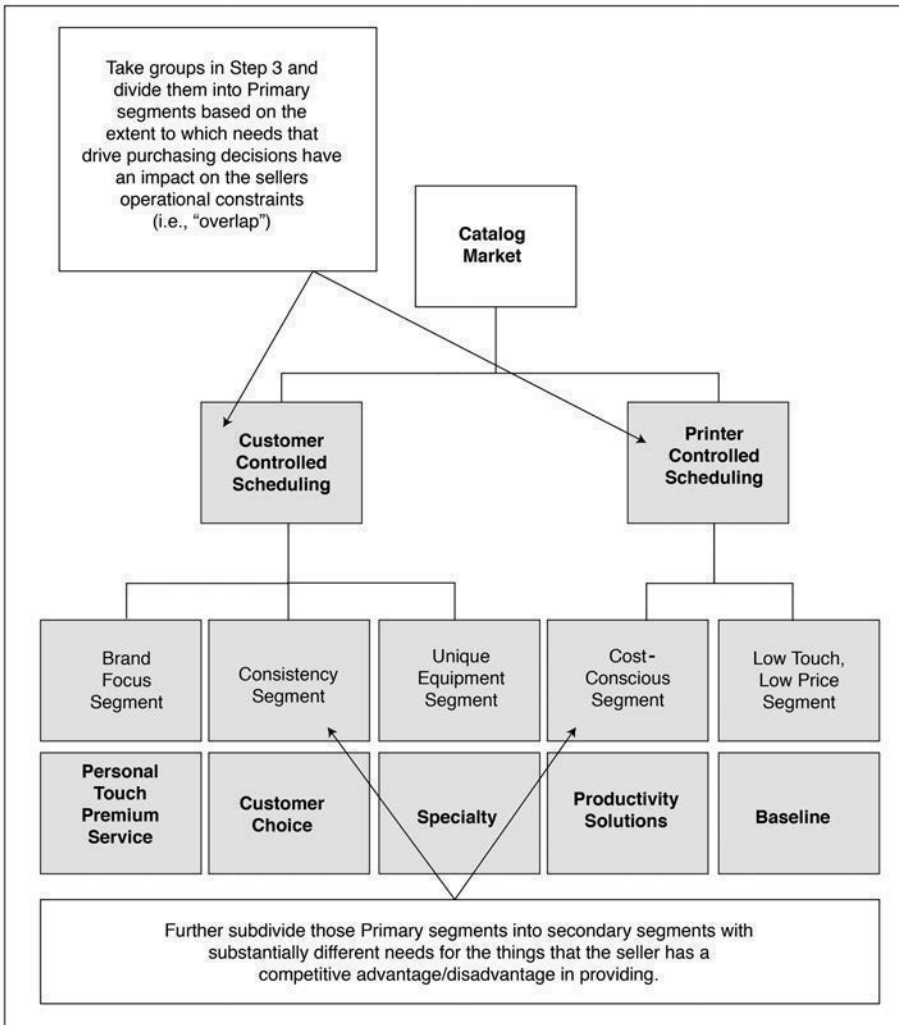
The example in Exhibit 2-10 illustrates the process for an industry-leading commercial printing company serving catalog marketers. Catalog companies have a variety of printing needs. Some are primarily concerned with brand image and ensuring that their direct marketing integrates well with their other sales channels such as retail stores. Others have unique needs, such as the ability to tailor catalogs to particular segments of a market by varying the "signatures" (groups of printed pages) bound into different parts of the print run. In this industry, print timing appears to be the major value differentiator. Some catalog companies insist on firm printing dates demanded by their business models, while others are more willing to let the printer determine when their jobs run. The strategic overlap is the cost-to-serve implication that results from the printer having only a finite number of presses and so many hours in the day, which limits the ability to commit to a firm print time.

Exhibit 2-10 shows a primary segmentation based on the strategic overlap of customer scheduling needs and printer operational capabilities. Two primary segments emerge: Buyers needing precise timing and those who are willing to relinquish timing control for a break on price. Within the "customer-controlled scheduling" primary segment, three secondary segments have different needs for special service, as follows:

- A "brand focus" segment requires custom services and tailored solutions.
- A "consistency segment" is more value-driven and concerned with their own margins, insist on getting high quality print every time but expect standard services such as proofing, binding, and trimming.
- A "unique equipment" segment has special needs such as odd trim sizes, small print orders, and customer-tailored binding, yet still wants control of the print scheduling process.



**EXHIBIT 2-10 Primary and Secondary Segmentation: Catalog Printing Industry**



The printer originally treated customers who could be flexible in their scheduling like all other customers, assigning them firm print dates even as they demanded and negotiated lower prices. Value-based segmentation revealed that these buyers would be willing to trade some flexibility in scheduling for reduced prices. The printer could schedule their jobs for off-peak demand periods when capacity otherwise would be idle. These secondary segments differed by the services they would trade for a lower price:

- The “cost-conscious” segment responded to service options that enabled them to deliver copy to meet consistently in a fixed time window for printing.
- The “low-touch, low-price” segment accepted bare-bones service, including a flexible print time and direct internet-to-press transactions, in return for even lower prices.

### Step 5: Create Detailed Segment Descriptions

Value-based segmentation variables can look fine to the price strategist, but segments should be described in everyday business terms so that salespeople and marketing communications planners know what kinds of customers each segment represents. Exhibit 2-11 lists the needs and typical firmographics of the customer-controlled scheduling segment's three sub-segments. It also lists specific catalog publishers within each segment.

### Step 6: Develop Segment Metrics and Fences

This is the next logical step in pricing strategy and management, a step we cover in greater detail in Chapter 4. Here, it's important to recognize that segmentation isn't truly useful until you develop the metrics of value delivery to market segments and devise fences that encourage customers to accept price policies for their segments.

Metrics are the basis for tracking the value customers receive and how they pay for it. For example, car rental companies once used a distance-based value metric and charged customers for the mileage traveled in addition to the time used. Over time, competition forced rental companies to drop mileage charges. Time alone has become the market-recognized value metric. Sellers define discounts such as weekly and monthly rental rates on time bundles.

Fences are those policies, rules, programs, and structures that customers must follow to qualify for price discounts or rewards. For example, minimum volume requirements, time-based membership requirements, bundled

**EXHIBIT 2-11** Characteristics of Three Printer Customer Segments

Segment	Brand Focus	Consistency	Unique Capability
Needs	<ul style="list-style-type: none"> <li>• Maintain brand image across channels</li> <li>• Custom services tailored to customer needs</li> <li>• Proactive problem resolution development</li> <li>• High maintenance</li> <li>• Full service bundled solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Margin management</li> <li>• Expects big 3 standard services, managed by the customer's staff</li> <li>• Precision printer performance</li> <li>• Moderate maintenance</li> <li>• Needs print/bind distribution</li> <li>• Paper supply options</li> </ul>	<ul style="list-style-type: none"> <li>• Products that are distinct to the end-user</li> <li>• Advanced targeting techniques to drive demand</li> <li>• Product longevity requires longer catalog shelf life</li> </ul>
Key Demographics	<ul style="list-style-type: none"> <li>• Large print order quantities</li> <li>• Mid-sized catalogs</li> <li>• Prints 1–4 or &gt; 12 times per year</li> <li>• Uses high-quality paper grades</li> <li>• Mostly saddle stitched</li> </ul>	<ul style="list-style-type: none"> <li>• Small to medium print order quantities</li> <li>• Mostly short cut-off/standard trim sizes</li> <li>• Medium-sized catalogs</li> <li>• Mostly saddle stitched</li> </ul>	<ul style="list-style-type: none"> <li>• Small print order quantities</li> <li>• Smaller-sized catalogs</li> <li>• Must have supplied component parts</li> <li>• Catalogs carry numerous store brands</li> <li>• Higher percentage of B2B catalogs</li> </ul>

purchase requirements, and so on keep prices paid and the value delivered to customers in line. Some fences can also force customers to pay higher prices regardless of the seller's costs; the notorious Saturday night stay requirements for reduced airline fares are a good example. Until competition forced airlines to drop the requirement, Saturday night stays effectively separated business travelers, who, presumably, could afford higher fares, from price-sensitive pleasure travelers.

Choose metrics and fences that establish and enforce premium prices for high-value segments, and allow feature repackaging and unbundling to appeal to low-value and low-cost-to-serve segments. As we shall see later in this book, the result is a menu of prices, products, services, and bundles that reflect different value received for different prices paid.

Identifying value-based segments, the metrics of pricing offerings, and the fences that maintain a price structure allows a marketer to expand its profit margins by aligning its prices, service bundles, and capacity utilization with the different value levels demanded by different customers. That's a win-win balance for sellers and buyers; everyone gets something. But, as we will see in later chapters, just how much either side wins depends on how much of the differential value created in a transaction each side captures. That's when policies to facilitate value-based price negotiations become important.

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## Summary

The foundation of a profitable pricing strategy begins with a complete understanding of the economic value the product delivers to buyers because, ultimately, value is the primary determinant of a buyer's willingness-to-pay. This foundational understanding of value contributes to a comprehensive pricing strategy in a number of ways. First, it provides insight into how willingness-to-pay differs across segments. As the commercial printing company example illustrates, a value-based segmentation can inform not only pricing, but offering design as

well. Second, understanding value is the only way to develop effective communications campaigns to increase customer's willingness-to-pay. Although a hot beachgoer probably recognizes the value of a cold drink delivered to her blanket, most customers are not so well informed, and it is the job of the seller to get the value message across. Finally, value can and should be one of the key inputs to the price-setting decision because, as we demonstrated in Chapter 1, building a pricing strategy on other metrics such as market share or costs leads to less profitable results.

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## Notes

1. Ron Johnson was the Senior Vice President of Retail Operations at Apple Inc.
2. Toyota fuel savings calculator. Accessed at [www.toyota.com/prius/prime/calculator](http://www.toyota.com/prius/prime/calculator).
3. Peter H. Lewis, "For Finances Past the Checkbook, a Small-Business Helper," *New York Times*, May 3, 1992. Accessed at [www.nytimes.com/1992/05/03/business/the-executive-computer-for-finances-past-the-checkbook-a-small-business-helper.html](http://www.nytimes.com/1992/05/03/business/the-executive-computer-for-finances-past-the-checkbook-a-small-business-helper.html).
4. See Thomas Nagle, "Money Back Guarantees and Other Ways You

Never Thought to Sell Your Drug”, *PharmaExecutive*, April 2008; and Tracy Staton, “Novartis Defies Naysayers with Newfangled Pay-For-Performance Deals on Entresto,” *FiercePharma.com*, February 10, 2016. Accessed at [www.fiercepharma.com/sales-and-marketing/novartis-defies-naysayers-newfangled-pay-for-performance-deals-on-entresto](http://www.fiercepharma.com/sales-and-marketing/novartis-defies-naysayers-newfangled-pay-for-performance-deals-on-entresto).

5. The quote is attributed to Ken Olson, founder of Digital, who reportedly made the statement at a 1977 World Future Society gathering. We should note that the quote is a little out of context; in later interviews Olson

explains that he was referring to the idea of the “connected home,” where lighting, temperature regulation, and tracking pantry inventories was controlled by computers. Source: [www.snopes.com/quotes/kenol sen.asp](http://www.snopes.com/quotes/kenol sen.asp).

6. For additional related discussion of this “proportional value-proportional price” argument, see Gerald E. Smith and Thomas T. Nagle, “Pricing the Differential,” *Marketing Management*, May/June 2005; and Gerald E. Smith and Thomas T. Nagle, “A Question of Value,” *Marketing Management*, July/August 2005.

## Price and Value Communication Strategies to Influence Willingness-to-Pay

*Nowadays people know the price of everything and the value of nothing.*

Oscar Wilde<sup>1</sup>

In Chapter 2, we argued that developing an effective pricing strategy requires understanding the value of your offer in order to set profit-maximizing prices across segments. Yet even the most carefully constructed value-based pricing strategy will fail unless your offer's value, and how it differs from a competitor's, is actually understood by potential customers. Although getting a good value is often one of the most important purchase considerations, customers who do not recognize your differential value are vulnerable to buying inferior offerings at lower prices supported by loosely defined performance claims. The role of value and price communications, therefore, is to convey your value proposition in a compelling manner to accomplish three goals: Enable customers to fully understand the benefits; improve their willingness-to-pay; and increase the likelihood of purchase.

In our research, we have found that business managers rated "communicating value and price" as the most important capability necessary to enable their pricing strategies.<sup>2</sup> Ironically, the same study found that the ability to communicate value is also one of the weakest capabilities in most sales and marketing organizations. In retrospect, these results are not surprising because effective value and price communications require a deep understanding of customer value (which many firms lack) combined with a detailed understanding of how and why customers buy (another shortcoming) to formulate messages that actually influence purchase behaviors.

Both sellers and buyers have made value communication complicated. Among sellers, value communication often gets substituted by "feature communication," whereby sellers point to extensive product specifications in the

hopes that the buyer is able to recognize where and how these features might deliver some benefits. Mobile phones are often advertised to have “64GB memory” or “4G connectivity,” yet few sellers translate these features into customer benefits such as the ability to store a specific number of pictures or relative improvements in reception quality. As a result, the seller forces the customer to divine the potential benefits that these features convey. Invariably this leads to a loss in fidelity especially among the less-experienced buyers and those lacking the time to perform research.

Simultaneously, the buyer, especially in B2B settings, is not incentivized to figure out the relative value propositions. When confronted with a choice between a cheap offer and a more expensive one with hard-to-understand benefits, the easiest path for a purchasing agent is to simply buy the lowest priced offer. He can easily justify the decision based on the cost savings, summarize his decision in a quick memo, and get home early for his son’s baseball game. On the other hand, to buy the more expensive offer, the agent needs to understand why his organization prefers it, document the economic benefits of using it, and write up a memo summarizing why the price premium is justified. This effort takes time and may require the agent to stay late at the office. A major goal for value communication is to provide the agent with the information needed to justify paying a higher price.

A third challenge in value communication is that marketers often assume that market demand is fixed and that the market alone will determine the price that a buyer is willing to pay. Yet this assumption is not true. Even in the most commoditized of markets, there are ways to differentiate an offering and reframe how buyers make price comparisons. Buying a set of new tires for the family minivan is a task rarely greeted with any enthusiasm. When confronted with an array of choices at the tire store and lacking any knowledge of the category, many consumers will treat the products as a commodity and instinctively select a lower-priced tire offered in the store. However, after the same consumer notices a Michelin advertisement, with a plump baby sitting in the middle of a tire with an admonition to “Remember what is riding on your tires,” automotive tires suddenly get reframed as important safety devices, and the premium charged for a Michelin tire is but a small payment for improved safety.

A fourth challenge is that in order to sell on value, you need to sell to the person that recognizes the value. Especially in business-to-business environments, there are usually multiple stakeholders involved in a purchase decision, and each stakeholder values different aspects of the offer. When selling flexible packaging materials to a CPG company, plant managers will value the technical support, the brand manager will be interested in the graphics capabilities that allow a product to stand out on a grocery store shelf, and the procurement group wants to understand the costs savings over the incumbent supplier. A seller needs to break down their value story into discrete messages and deliver the most relevant story to each stakeholder in the buying process.

The purpose of this chapter is to explain how to develop compelling messages that convey the value of key product characteristics of your offering to the right people. This chapter will explore how to leverage quantifiable benefits defined by the Economic Value Estimation (EVE®) model as well as how to use principles of behavioral economics to create messages that resonate more powerfully. We will also discuss how to adapt the message across different types of products and different purchase occasions. And importantly, will

show how effective value communication can influence willingness-to-pay, shape market demand, and make it easier for the buyer to justify paying a price premium for more value.

## VALUE COMMUNICATION

Value communication can have a great effect on sales and price realization when your product or service creates value that is not otherwise obvious to potential buyers. The less experience a customer has in a market or the more innovative a product's benefits, the more likely it is that the customer will not recognize nor fully appreciate the value of a product or service. For example, without an explicit message from the seller, a business buyer might not realize that a nearby distribution center offering shorter delivery times could reduce or eliminate the cost of carrying inventories or even recognize how quickly inventoried items depreciate. Properly informed, the customer would see how much money faster delivery saves, justifying a price premium.

In addition, a buyer's perceptions of value are shaped by the way information is conveyed. For example, by highlighting that the cost of a pharmaceutical drug is covered by insurance, the role of price becomes less relevant and the buyer is able to focus on other aspects of the message such as the relative efficacy of the drug.

## ADAPTING THE MESSAGE FOR PRODUCT CHARACTERISTICS

The first step in developing a value message is determining which customer perceptions to influence. We start with an understanding of the value drivers that are deemed most important to a customer segment. The goal is to help the customer recognize the linkages between a product's most important differentiated features and the salient value drivers. The two dimensions that frame a communications strategy are: (i) The type of value delivered—economic or psychological; and (ii) the degree of buyer involvement—do they actively seek information to make detailed comparisons or do they make a decision based on what is known in the moment? Exhibit 3-1 summarizes these dimensions.

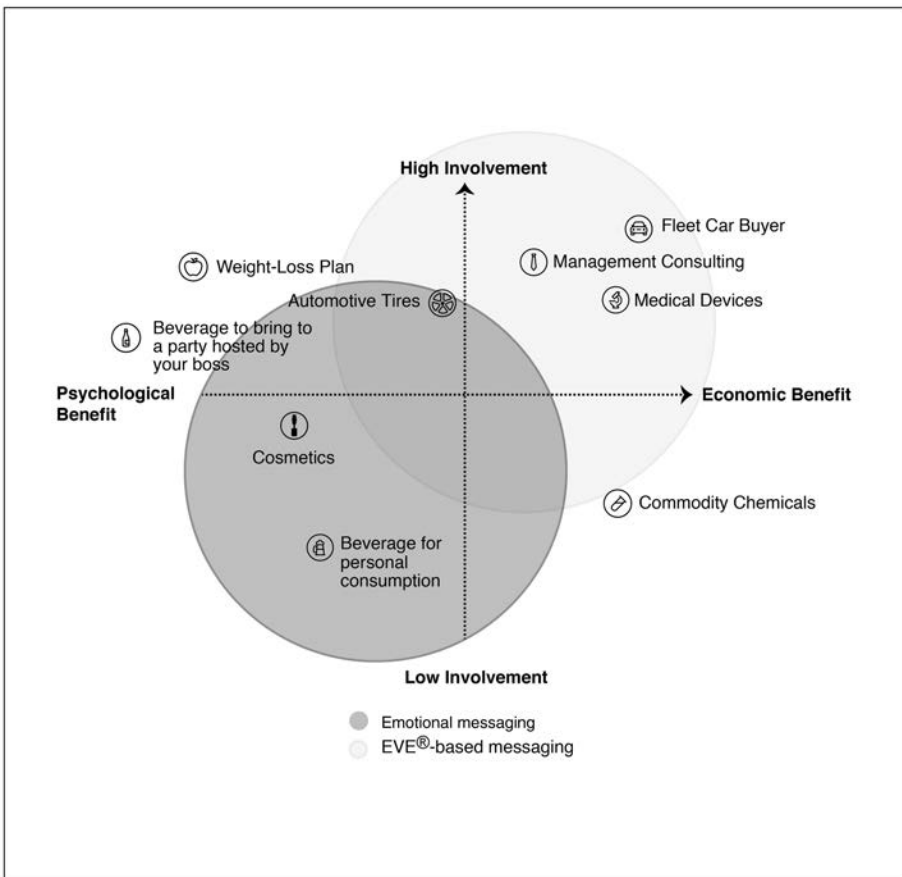
*Understanding the type of value sought* has a significant implication for the communication strategy. Measurable monetary benefits such as profit, cost savings, or productivity motivate many purchases and translate directly into quantified value differences among competing offers. But for other purchases, especially consumer products, psychological benefits such as comfort, appearance, pleasure, status, health, or personal fulfillment play a critical role in customer choice. Although the value of both psychological and monetary value drivers can be quantified, the way in which that data should be used in market communications differs. For goods in which monetary value drivers are most important to the customer, value quantification should be a central part of the message because the data calls attention to any gaps between the customer's perceptions of value and the actual monetary value of the product. For psychological benefits the value messaging will focus on how a product will make the customer feel, much like the tire example cited earlier.

It is important to note that virtually every purchase has an economic and a psychological element to it—for example, the purchaser of an electric car

may feel significant benefits from the virtues of protecting the environment, yet justifying the price premium will require communication of the potential fuel and operating cost savings during ownership. Likewise, purchase of a weight-loss program may be primarily driven by psychological factors such as a desire to improve one’s physical appearance or to feel more physically fit. However, there is also a potential economic factor in play. In this case, research has shown that obesity can lead to earnings that are lower for both men and women,<sup>3</sup> so attaining a healthy weight can have monetary benefits as well.

Another example of combining financial and psychological value messages occurred when a medical device manufacturer had to justify a substantial price premium for its drug-coated coronary stent used to keep clogged arteries open. The company priced its stent at \$3,500—twice the price of traditional uncoated stents and well in excess of the cost of the drug used to coat the stent. Such aggressive pricing aroused critics in the medical professions and in the media who accused the company of price gouging and challenged the company to reconcile the value of the new product with its price. The manufacturer did so by explaining the economic benefits to medical professionals. Stent implantation surgery costs more than \$30,000, including the cost of the

**EXHIBIT 3-1 Purchase Involvement and Benefit Types for Products and Services**





stent. But in 20 percent of cases, an uncoated stent reclogs in less than a year, requiring a repeated procedure at another \$30,000 cost. With its new drug-eluting stent reducing the likelihood of reclogging, the surgery repeat rate fell to around 5 percent. Thus, the objective differentiation value from the smaller reclogging rate was \$4,500: The 15 percent rejection rate difference multiplied by the cost of a second surgical procedure. In addition, patients received substantial psychological value in avoiding the risk and discomfort of a repeat procedure, a benefit the company emphasized to the public. The combination of economic and psychological justification enabled the company to not only win a larger reimbursement from payers when surgeons used its drug-eluting stent but also to defuse the initial hostility and resistance to its price.

*The degree of buyer involvement* varies dramatically from one product category to the next as well as across purchase occasions. The level of involvement tends to increase when the purchase is more expensive. A \$5 purchase may not require much consideration, but spending an hour evaluating alternatives before spending \$5,000 would seem merely prudent. And for larger purchases, the level of due diligence can increase; a fleet buyer planning to purchase 2,000 cars may even consider buying several models and testing them for three months to fully understand the relative differences across each model. Involvement also increases when the item purchased is being used in a high visibility environment. For example, purchase of a six-pack of beer might be quite routine when it is for personal consumption. However, when a six-pack is purchased as a gift for the host of a garden party, the level of thought and consideration rises. If the host happens to be your boss, you may opt for a more expensive brand than your usual choice. If the recipient is a beer connoisseur, you may choose an unusual microbrew. If the party has a salsa theme, you may choose a brand brewed in Mexico.

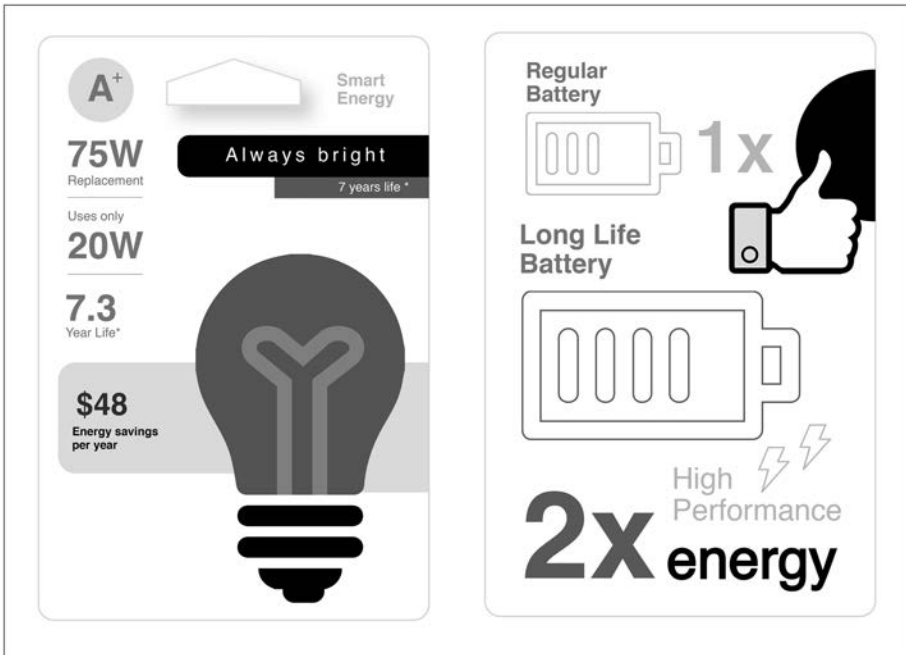
### **Low-Involvement, Psychological Benefits**

Low-involvement goods whose benefits are mostly psychological include many consumer packaged goods, cosmetics, or apparel (although the authors fully recognize the existence of some consumers who are very passionate about these categories and treat them as high-involvement purchases). Many of these products are sufficiently low in cost that consumers do not find it worthwhile to conduct extensive research prior to making a purchase. Instead, simply trialing multiple brands over time is the more efficient way to establish a personal preference. For products of this nature, the role of value communications will focus on the psychological benefits as well as creating offers that make it easier to try out the product. Nike's "Just Do It" campaign conveys little about the economic value of its products, but reinforces the psychological: Buying our products lets you be the athlete you want to be! The messaging is further reinforced by the Nike stores that allow consumers to "get close" to their favorite athletes through unique in-store experiences.

### **Low-Involvement, Economic Benefits**

Many low-involvement products can have benefits that are predominantly economic. For example GE's energy efficient light bulbs are supported by the "Energy Smart, Bright from the Start" campaign in which each package of GE

## EXHIBIT 3-2 Economic Value Messages for Low-Involvement Goods



compact fluorescent bulbs contains a claim about the cost savings a consumer could achieve through reduced power consumption as well as improved longevity—and commensurate reduction in replacement costs—associated with the bulb (Exhibit 3-2).

### High Involvement, Psychological Benefits

An example of a product that falls in the upper-left quadrant of Exhibit 3-1 would be the purchase of the weight-loss program referenced earlier. Engaging in such a program is usually the outcome of a careful personal decision and requires the evaluation of many competing offers such as gym memberships, dietary supplements, pre-packaged meal programs or, in some cases, even surgical interventions. The potential psychological benefits are enormous and for most consumers take precedence over the economic benefits. The role of celebrity endorsements such as Oprah Winfrey's promotion of Weight Watchers, customer testimonials such as actress Kirstie Alley for the Jenny Craig weight-loss program, or trial membership at a gym may make it easier to try the product.

### High Involvement, Economic Benefits

Finally, high involvement products that deliver primarily economic benefits include services such as management consulting and university educations, as well as products such as airplane engines and surgical devices. A key decision criterion in the purchase of each of these products is their relative economic

benefit in the form of labor efficiency, future earnings potential, fuel savings, or treatment costs. At the same time, given the cost and magnitude of potential benefits, purchase in any of these categories tends to be a high involvement activity. The decision is carefully deliberated with consultation of many involved in the purchase decision; data is collected on the relative performance levels of each alternative; and an evaluation of benefits relative to any cost differentials is carefully studied.

An interesting observation is that as customers gain expertise, the level of involvement can change, and so does the value messaging. A technophile can read the feature specifications for a laptop computer and quickly infer how it will perform various tasks. A more typical buyer, however, would have to do considerably more research and test various offerings to make the same inferences. As a result, less sophisticated buyers often develop strategies to lower search costs such as purchasing a known brand or relying on the advice of an expert. The endorsement of an expert can be very powerful, even in business markets. For example, Kaiser Permanente, a western U.S. health maintenance organization, has a reputation for being a well-informed buyer of cost-effective medical products. The company often tests drugs and devices itself and will not buy a more expensive product without economic justification.<sup>4</sup> Consequently, when other hospitals and health maintenance organizations (HMOs) learn that Kaiser Permanente has adopted a more expensive product or service, they may assume that its price premium is cost-justified.

## **STRATEGIES FOR CONVEYING VALUE**

Most market research on willingness-to-pay relies heavily on the assumption that purchase decisions are motivated by considerations of value delivered—whether economic or psychological. What distinguishes useful from misleading research is the extent to which the researcher accounts for differences between the assumptions of this basic model and the way customers in a particular market actually make decisions. Unfortunately, many researchers design a study assuming full knowledge of the prices and features of common substitutes without first determining how much consumers actually know about the substitutes when making a purchase. These studies may show how well-informed consumers may choose, but are rarely reflective of actual market conditions.

When the benefits are mostly economic, value communication needs to be a central part of the message in order to educate the customer on the actual value delivered. One of the best ways to convey economic value is to leverage the EVE<sup>®</sup> model that was described in Chapter 2. Exhibit 3-3 shows an example of a value-based selling tool used by salespeople to develop a customer-specific estimate of the value from installing a piece of telecom equipment that reduces the service outages and the corresponding number of calls from affected customers to a service center. While this example is only illustrative, notice that the data and assumptions, derived from the value estimation model, are well documented and quite detailed. While inexperienced salespeople sometimes fear that they will be challenged if they make value claims, more experienced salespeople relish the opportunity to engage in give-and-take conversations about precisely how much value their product creates. Only in that context can a salesperson justify a price premium that

**EXHIBIT 3-3 Spreadsheet Value Communication Tool**

Data Inputs	Value
<b>ENTER these Inputs:</b>	
<b>Help Desk and/or Customer Service</b>	
Total customers in impacted service area	4,000
Average no. of trouble calls per day—normal	150
Avg. no. of trouble calls per day—outage incident	200
Duration of outage or network congestion—days	60
Average call duration in minutes	3.8
Help Desk wages & benefits—hourly	\$11.50
<b>Management Time</b>	
No. managers needed to resolve incident	1
Percent of management time required	15%
Management loaded salary and benefits	\$75,000
<b>Other Costs</b>	
Percent calls unresolved or receive bill credits	50%
Average billing credit (1 month)	\$17.95
Percent impacted calls that are long-distance	100%
Avg. cost per minute for 800 calls to help desk	\$0.07
<b>General</b>	
<b>Number of users per port</b>	<b>10</b>
<b>Calculation:</b>	
<b>Total ADDITIONAL man hours cust. service</b>	<b>190</b>
Total cost for additional help desk & cust. service labor required	\$2,185
Total cost for management time	\$1,875
Total billing credits	\$26,925
Total 800 call costs	\$798
<b>Avg. cost per call (less mgt. expense)</b>	<b>\$9.97</b>
<b>TOTAL COST SAVINGS TO CUSTOMER (per outage incident)</b>	<b>\$31,783</b>
Estimated telecommunications lines in impacted service area	17
<b>COST SAVINGS PER TELECOMMUNICATIONS LINE</b>	<b>\$1,870</b>

might otherwise seem unacceptable to a business buyer who is not the actual user of the product. A key benefit of the EVE® model is that it can be displayed on a salesperson’s laptop or tablet, as an interactive tool where key customer parameters as well as the characteristics of competitive products can be entered to illustrate the value proposition.

When the important value drivers for a purchase decision are psychological rather than monetary, it is best to avoid incorporating quantified value estimates into market communications because value is subjective and will vary from individual to individual. However, one should not conclude that subjective values, such as those that a customer might reveal in a joint research study, cannot be influenced by communication. There are two ways to do this. One is to focus the message on high-value benefits that the customer might not have been thinking about when considering the differentiating features of the product. The second is to raise perceptions of the product’s performance benefits that cannot be easily judged prior to experiencing them. Batteries all look and feel the same, even after one begins to use them. Not until they are entirely consumed can one actually know the life, and even then one would have no comparison unless two brands were

bought and used in identical devices. It is perhaps no surprise that a certain leading battery maker has developed a battery powered toy rabbit into an iconic marketing mascot as a way to explain the long life of its batteries. The advertisements do not need to make any explicit mention of pricing or relative battery life; the ability of the toy to operate seemingly forever is enough to convey the message.

Estimating economic value to the customer is fundamental to marketing in general and to pricing in particular, but it is just one facet of the role of price in customer decision-making. When dealing with knowledgeable and sophisticated purchasers (such as specialized purchasing agents or a dedicated bargain hunter), economic value analysis can describe and predict buyer behavior quite adequately. However, most customers, even those in B2B environments, do not make purchase decisions exactly as economic value analysis would indicate. Although getting good value is usually a critical purchase consideration, customers will not always choose the very best value. And in cases where economic value is not apparent such as the purchase of a bottle of wine, buyers will revert to heuristics and market signals when making purchase decisions.

The role of non-economic factors becomes more important when the expenditure is small or when someone else is paying the bill, the effort of diligently evaluating all the alternatives is not worth the effort. At other times, being aware of alternatives or being unable to evaluate them before purchase makes finding the best deal too difficult or risky. Occasionally, the desire to impress others leads buyers to choose high-priced offerings as is sometimes the case with luxury automobiles. Considerations like these often mitigate the importance of economic value relative to the importance of psychological factors such as prestige, convenience, safety, or fairness.

These considerations tend to fly in the face of traditional economics which has always posited that economic actors (buyers and consumers) are rational and fully informed about competing offers. The exploding field of behavioral economics has shown that people rarely fulfill the criteria of being well informed or rational. Instead, buyers often depart from economic rationality in systematic and predictable ways. In other words, buying decisions and the corresponding evaluations of price points are replete with market and business process inefficiencies. As noted behavioral economist Richard Thaler describes it:

*[Economically rational actors] are really smart. They know as much about economics as the best economist. They make perfect forecasts, have no self-control problems and are complete jerks. They'll steal your money if they can and get away with it . . . Most of the people that I meet don't have any of those qualities. They have trouble balancing their checkbook without a spreadsheet. They eat too much and save too little. But nevertheless they'll leave a tip at a restaurant even if they don't plan to go back.<sup>5</sup>*

Applied to the world of pricing, creating an effective strategy to convey the psychological values of an offering requires consideration of several critical effects influencing buyer behavior that have been developed in the literature on behavioral economics. Following is a summary of the most common effects and their influence on a buyer's perception of value and their consequent sensitivity to price.

### Competitive-Reference Effect

True value is what is perceived by consumers who are fully informed of alternatives, understand the benefits of differentiation, and act in rational ways. In the real world, however, such customers are few and far between. Either they do not have enough time to make informed decisions, are floundering in data, or do not understand the consequences of poor choices. As a result, they will resort to heuristics and other mental shortcuts to help guide the decision process. Restaurateurs in resort areas face less pressure to compete on price, in spite of the higher concentration of restaurants in those areas because their transient clientele is usually unaware of better alternatives. Instead they focus on the “signals” that influence how tourists choose—convenient locations, good signage, and close relationships with local concierges who can steer customers to favored restaurants. Local residents view the restaurants near resorts as “tourist traps,” precisely because they can charge higher prices than restaurants less visible to tourists but patronized by a more informed clientele.

One of the most common shortcuts is to find a competitive reference product—often a highly visible and high-cost brand in the market—to assess relative value. By managing a customer’s understanding of the relevant competitive alternatives, a seller can significantly influence the customer’s willingness-to-pay. Woolite laundry detergent has successfully defended a significant price premium compared to conventional detergents by reframing their product as an alternative to dry cleaning. In other words, by shifting the customer’s attention to the cost of a dry cleaner and reminding audiences that Woolite is intended for the more delicate clothes in one’s wardrobe, the brand is viewed as a bargain relative to a drycleaner instead of a premium against conventional detergents.

Presented with an array of choices, and absent much knowledge of the category, customers’ perception of value is influenced by the range of prices available to them at the time of purchase. Most will choose options in the middle of the assortment. They engage in an internal debate on not being too cheap, nor appearing too extravagant and as a result tend to make an intermediate selection. For example, a business machine company with three models in its line found the sales of the top-end model disappointing. The company believed that many customers would benefit from the additional features of the high-end model, yet customers were buying the mid-tier model. Management’s initial assumption was that the high-priced model must be too expensive. After interviewing customers however, they learned that most did not think that the product was overpriced. Rather, they simply could not overcome the objections of the financial controllers that the company did not need “the most expensive model.” The solution: The company introduced a fourth, even more expensive model to its line. The new model sold poorly, but sales of the previously top-end model increased dramatically.

We see similar strategies play out on restaurant wine lists. We often amuse ourselves thinking about which customer might be the one ordering the \$3,700 bottle of 2010 Chateau Petrus on the menu. The reality is that this offering is rarely purchased. In fact, it is often not even in the wine cellar! Its inclusion on the wine list serves merely as a decoy to signal to the diner considering

a \$30 bottle that this establishment is really the kind of place where a \$70 bottle is more appropriate.

### **Switching-Cost Effect**

Buyers are less sensitive to the price of a product as the added costs (both monetary and non-monetary) of switching a supplier rises. The reason for this effect is that many products require that the buyer make product-specific investments to use them. If those investments do not need to be repeated when buying from the current supplier, but do when buying from a new supplier, that difference is a switching cost that limits inter-brand price sensitivity. For example, an airline may be reluctant to change suppliers, from say, Boeing to Airbus planes, because of the added cost to retrain their mechanics and to invest in a new stock of spare parts. Once an airline begins buying from a supplier, it may take a very attractive offer from a competitor to induce them to switch. Similarly, even personal relationships can represent significant intangible investments that limit the attractiveness of a competing offer. For example, busy executives must invest considerable time in developing rapport with their accountants, lawyers, and childcare providers. Once these personal “investments” are made, they are reluctant to repeat them simply because another otherwise qualified supplier offers a lower price.

This is the switching cost effect: The greater the product-specific investment that a buyer must make to switch suppliers, the less price sensitive that buyer is when choosing between alternatives. Since this effect is most often attributed simply to inertia, it is easy to underestimate its predictability and manageability.

In a recent project involving a food ingredient that was coming off patent, buyers at large CPG companies immediately demanded that prices come down to match the price of the new generic supplier. On the surface, their demands made a lot of sense – the generics were indeed identical, right down to the molecular structure. However, a closer analysis revealed that there were significant switching costs. Any new supplier would have to go through a rigorous qualification process that typically took three to six months to complete, involved factory audits, and pilot runs. Supply chain logistics would need to be redesigned to reflect that the generics were produced abroad and not locally. And because the generics had a long route to market, any customer would have to establish a local warehouse with buffer inventory in case there was a disruption to a shipping channel. When these significant switching costs were considered, the economic incentive to switch to a lower-cost supplier evaporated and the incumbent was able to continue charging a price premium.

### **Difficult-Comparison Effect**

The concept of economic value assumes that customers can actually compare what the alternative suppliers have to offer. In fact, it is often quite difficult to determine the true attributes of a product or service prior to purchase. For example, when a child suffers from a fever, a parent may be aware of the many alternate flu remedies that are cheaper than their usual brand and claim equal

efficacy. But if they are unsure that these brands are technically identical to the one they usually buy, or if they doubt that the cheaper brand will be as effective, they will not consider them perfect substitutes. Consequently, they will often continue to pay higher prices for the assurance that their regular brand offers what the substitutes do not: The confidence accumulated from past experience that their brand can do what the others only promise to do.

Branded grocery products are often packaged in unusual shapes and sizes making price comparisons with cheaper brands difficult. When, however, stores offer unit pricing (showing the price of all products by the ounce or gallon), grocery shoppers can readily identify the cheaper brands. In one study of unit pricing, the market shares of cheaper brands increased substantially after stores ranked brands by unit price.<sup>6</sup>

These examples illustrate the difficult-comparison effect: Buyers are less sensitive to the price of a known or reputable supplier when they have difficulty comparing alternatives. Rather than attempting to find the best value in the market and risk a poor value in the process, many purchasers simply settle for what they are confident will be a satisfactory purchase. Their confidence in a brand's reputation may be based on either their own experience with the brand or on the experience of other people whose judgement they trust. Examples of suppliers whose profitability rests on the trust that consumers associate with their names include McDonald's, KitchenAid, and Marriott. The trust for which buyers will pay price premiums is not that sellers of these brands will necessarily provide the highest quality, but rather that they will consistently provide the good value-for-money that buyers come to expect from them.

The same principle applies to business markets. Industrial buyers are commonly thought to seek many suppliers whom they play against one another for lower prices. In fact, industrial buyers usually follow such a policy only for those products whose quality and reliability they can easily evaluate at the time of purchase. When products are difficult to evaluate and the cost of failure is high, industrial purchasers are at least as brand loyal, and as price insensitive, as are household buyers. In fact, for purchases that are relatively risky and difficult to evaluate (such as new plant construction, consulting services, or incorporating a new technology into an existing product formulation), industrial buyers will often develop loyal relationships with a list of approved suppliers with whom they have had a satisfactory experience.<sup>7</sup> They will not even consider purchasing from an unknown supplier, even though that supplier claims to offer the same quality at a lower price. The cost of switching a supplier—both real economic costs as well as personal career risks—should be important factors for any seller of a product that is suddenly facing a low-cost competitor.

### **End-Benefit Effect**

A buyer's price sensitivity is influenced by the importance of the benefit that they are trying to derive from their purchase. Many years ago IBM used the slogan "No one ever got fired for buying Big Blue," a message that was aimed, not at the user of their business machines, but at the purchasing agent to remind him that he faced a very personal risk if he procured a less well-known brand that did not deliver the desired performance.



The importance of the end result is a critical driver of the end-benefit effect. The greater the risk and the higher the cost of failure, the more salient this effect becomes. Consider the Boeing 787 jetliner. One of the significant innovations in its design is that it is constructed from a composite material that is lighter and stronger than aluminum. One interesting aspect of working with composites is that mechanical fasteners such as rivets are no longer used to join parts together. Instead, significant assemblies like the wings are attached to the fuselage using glue.<sup>8</sup> And while the glue is very similar to the adhesives you might find in a hardware store, given the high stakes of failure, the glue purchased by Boeing is aircraft grade, which is subject to substantially higher quality controls, additional certifications, and costs significantly more.

### Price-Quality Effect

Generally, price represents nothing more than the money a buyer must give to the seller as part of the purchase agreement. For a few products, however, the price means much more and the old adage, “you get what you pay for” has special resonance. These products fall into three categories: Image products, exclusive products, and products without any other cues to their relative quality. In these cases, the price is more than just an attribute, it is also a signal of the value that a buyer can expect to receive. In such cases, a customer’s willingness-to-pay is influenced by the price-quality effect, which states that buyers are positively influenced by a higher price, because it may signal better quality.

A buyer might use price as a quality signal for a number of reasons. Consider what motivates the purchase of an obvious image product such as a Rolex watch. In terms of tangible value—the ability to keep accurate time—a smartphone incorporates all sorts of new technologies that have increased the accuracy of timekeeping since the invention of the chronometer by John Harrison who created Sea Watch No. 1 (H-4) in 1759, the first device to track time accurately enough for nautical navigation.<sup>9</sup> While the Rolex uses many of the same design principles of Harrison’s invention (and loses or gains up to 2 seconds per day due to the limits of mechanical devices), the time on a smartphone is continually updated to an atomic clock via its cellphone tower network. And a smartphone costs less than one-tenth of the price of a Rolex! But buyers of a Rolex do not purchase the watch as a cost-effective timekeeper any more than they buy a Porsche as cost-effective transportation. They buy these items in part to communicate to others that they can afford them. They pay a premium for the confidence that their Rolex’s uniquely expensive method of production ensures its continued value as a status of wealth.

Consumers often value such symbols when the product reflects on them personally. Consequently, brands that can offer the consumer prestige in addition to the direct benefits of consumption that can, and must, command higher prices than less prestigious products. In many luxury goods categories, a consumer’s price sensitivity decreases to the degree to which they value the recognition or ego gratification that the premium brand gives them.

One of the authors regularly marvels at the many advertisements for prestige goods that are placed in the *Sunday New York Times*. Are these advertisements intended to prompt the reader to purchase a luxury good for a spouse? Perhaps. But another conjecture is that the ads are placed on behalf of consumers who have already purchased the luxury good. That is,

the purchase of an expensive prestige good enters the buyer into an implicit agreement with the seller whereby the seller agrees to communicate to buyer's friends and neighbors just how special (and expensive) their recent purchase was.

A prestige image is only one reason that buyers might find a more expensive purchase more satisfying. The exclusivity that discourages some people from buying at a high price can, in addition to image, add objectively to the value. Many professionals—doctors, dentists, attorneys, and hairdressers—set high prices to limit their clientele enabling them to schedule clients farther apart. This ensures that each one will be served without delay at the appointed time, a valuable service for busy people. Some business travelers choose to fly first class, not because of the leg room or the food, but because the high price reduces the probability of sitting next to a noisy child or a loquacious vacationer who might interfere with the work they must do on the flight.

Often, the perception of higher quality at higher prices reduces price sensitivity even when consumers seek neither prestige nor exclusivity. This occurs when potential buyers cannot ascertain the objective quality of a product before purchase and lack other cues such as known brand names, country of origin, or a trusted endorsement to guide their decision. In these cases, consumers will often rely on the relative prices of the offerings as a cue to a product's relative quality, apparently assuming that a higher price is probably justified by a correspondingly higher value.

In an experiment performed at Cal Tech,<sup>10</sup> researchers found that increasing the stated price of a wine resulted in higher taste test ratings by consumers. When presented with wines that were priced at \$5, \$10, \$35, \$45, and \$90 per bottle, consumers consistently preferred the \$90 wine to the \$5 wine, and preferred the \$45 bottle to the \$35 bottle. The catch, however, was that while subjects were told that they would taste five different wines, they in fact only tasted three. The \$90 wine actually retailed at that price, but was represented to subjects as both a \$90 as well as a \$10 bottle wine. When it cost \$90, subjects loved the wine; at \$10 they did not like it as much. The additional fascinating finding from this research was that all subjects were connected to an MRI machine while they were doing the wine tasting, and the brain scans showed that when sampling the expensive wine, the medial orbitofrontal cortex—the part of the brain that registers pleasure—showed higher activity than when subjects were tasting the lower-priced wines. Finally, in a follow-up experiment where subjects tasted the wine samples without any price information, the cheapest wine was most preferred.

Price can also influence the actual effectiveness of a product. In an experiment where students about to take an exam were offered an energy drink that was sold either at regular price or at a discount, those who paid full price performed better on the exam.<sup>11</sup> Even though everything else was identical—product, packaging, and branding—simply selling the item at a discount led to a poorer test performance relative to those who purchased their energy drink at full price. It makes one wonder whether it is a good idea to label off-brand drugs as *generics* and convince consumers that they will benefit from the cost savings over the branded version. Perhaps it could be a better idea to label generics as “brand-equivalent, clinically-approved therapy,” and charge consumers a little more?

### Expenditure Effect

The expenditure effect states that buyers are more price sensitive when the expenditure is larger, either in dollar terms or as a percentage of available budget. As the expenditure increases, the potential return to shopping around for a better deal increases. On the other hand, small impulse purchases are simply not worth any effort to ensure that the price is a good deal. This partially explains why large transactions such as buying a full case of soda is cheaper – and even accompanied by additional promotions – while the purchase of a single can of soda from the cooler in the checkout line is significantly more expensive on a per-unit basis and rarely discounted.

The effect of the expenditure size on price sensitivity is confounded in consumer markets by the effect of income. A family with five children may spend substantially more on food than a smaller family, yet still be less price sensitive if the cost of food accounts for a smaller portion of the large family's high income. This relationship between a buyer's price sensitivity and the percentage of income devoted to the product results from the trade-offs buyers must make between conserving their limited income and conserving the limited time they have to shop. Higher-income buyers can afford a wider variety of goods but cannot always afford more time to shop for them. Consequently, they cannot afford to shop as carefully as lower-income buyers and so they accept higher prices as a substitute for time spent shopping.<sup>12</sup>

The expenditure's size relative to income is also a constraint on both a business's and a household's primary demand for a product. A young man may long for a sports car believing that a Porsche clearly has differentiating attributes (such as handling and engine performance) that justify its premium price relative to similar cars. However, at his low income he is not making a purchase decision among sports cars. His budget is currently consumed by more important expenditures such as food, rent, and education. Until his income rises, or the price of sports cars drops, his preference within the category is not relevant.

Successful marketers of premium products will reframe premium prices in a different context to lower the buyer's price sensitivity. Life insurance is a product that is particularly useful for a young family that has significant long-term financial obligations in raising children, yet is at a life stage where their present budget can't cover all of their future needs. By offering different coverage levels and by breaking down an annual cost into quarterly payments—or even a daily cost “*only \$0.37/day!*”—the purchase can be framed in a manner that makes it seem much more affordable even to a cash-strapped young family.

### Shared-Cost Effect

Although the portion of the benefit accounted for by the product's price is an important determinant of price sensitivity, so is the portion of that price that is actually paid by the buyer. People purchase many products that are actually paid for in whole or in part by someone else. Insurance covers a share of the buyer's cost of a doctor's visit or prescription drug. Tax deductions are designed to reduce the price sensitivity to engaging in beneficial behaviors such as investing in an education, purchasing equipment for a business, or

charitable giving. When travel is paid for by an employer, employees might choose an airline with better amenities, not necessarily the lowest cost. When a child chooses a college to attend, he or she may be more likely to select an expensive private school if they have a scholarship or a wealthy relative willing to cover the cost of tuition. In each case, the smaller the portion of the purchase price buyers must pay themselves, the less price sensitive they are. The effect of partial or complete reimbursement on price sensitivity is called the *shared-cost effect*.

The shared-cost effect is a fundamental design principle built into the federal tax code. By offering tax breaks and credits for taking out a mortgage, having a child, or purchasing health care, the government is essentially willing to share the cost of engaging in behaviors that are deemed beneficial to society.

It should also be noted that sharing the cost does not always lead to greater demand. Consider how a spouse would react if, after celebrating a special occasion at a nice restaurant, their partner paid for the dinner using a discount coupon. Unless the spouse is an economist or an accountant, sharing the cost of the meal with the restaurant would probably be viewed as rather unromantic.

### **Transaction Value Effect**

The value of a transaction—both economic and psychological—is also influenced by the structure of the financial terms and structure of the deal. Suppose you are about to purchase a car from a dealership where you know that haggling over prices is the norm. As a smart consumer, you have looked up the dealer’s wholesale costs to determine the “price floor,” you’ve logged onto TrueCar, an information website for car buyers, to review recent transaction prices, and you have formulated in your mind what you think would be an aggressive, low-priced offer to start the negotiations. Consider the scenario in which, upon hearing your offer, the dealer tells you that your price is far too low, counters with a higher price, and engages in several rounds of negotiations before you mutually agree on a price that is between your opening offer and the dealer’s initial price. In this instance, even though the final transaction price is higher than your opening offer, you generally feel confident that you got a good deal because the negotiations were laborious and resulted in the dealer moving down from his opening offer.

By contrast, consider the same scenario as described above, except in this instance, upon hearing your opening offer, the dealer immediately accepts your offer. In this instance, your reaction is more likely one of dread that your offer was too high—after all, why else would the dealer have accepted the deal so quickly? The transactional value in this second scenario is likely lower than in the first. And yet from an economic perspective, you are better off in the second scenario.

*Transaction value* suggests that buyers are motivated by more than just the “acquisition utility” associated with obtaining and using a product. They are also motivated by the “transaction utility” associated with the difference between the price paid and what the buyer considers a reasonable or fair offer for the product. Transaction utility is framed by the difference between the actual price paid and the reference price, which is the amount that the buyer would consider reasonable or fair. In the car-buying example above, the reference

price in both instances is a price higher than the buyer's opening offer—the underlying expectation for the buyer is that their opening offer would be considered unreasonably low to the dealer and that the ultimate price will be higher. Thus in the first instance, when the dealer counters with a higher price, the reference is set at a relatively high number. Any discount from that initial counter-offer is seen as a discount off of the reference and contributes to a positive transaction value. In the second scenario, however, the immediate acceptance of the initial offer implies that the dealer may have accepted an even lower offer—and signals to the buyer that he is probably overpaying relative to the implied reference price. The transactional value has now become negative, even though the transacted price is lower than in the first scenario.

### **Fairness Effect**

The concept of a “fair price” has bedeviled marketers for centuries. In the Dark Ages merchants faced a death penalty for exceeding public norms regarding the “just price.” In the more recent communist period, those who “profiteered” by charging more than the official prices—even though the state was unable to meet demand—were regarded as criminals. Even in modern market economies, “price gougers” are criticized in the press, hassled by regulators, and boycotted by the public. After Hurricane Sandy hit America's East Coast, the governor of New Jersey, a state particularly hard hit, issued a warning: “During emergencies, New Jersians should look out for each other, not seek to take advantage of each other,” and reminded citizens that price gouging was illegal and would warrant harsh penalties, even though economic theory would suggest that prices should naturally rise during periods of supply shortages.<sup>13</sup>

There is no precise definition of what is considered fair. It is a community-held norm that is not guided by factors such as profitability (oil companies are routinely accused of unfair price gouging even though their profits are below the U.S. industry averages), absolute value (makers of medical devices and pharmaceuticals are often accused of unfair pricing even when their products are demonstrably shown to save lives) or supply (national sports leagues will sell tickets to championship games at face value, even if there is clear excess demand).

And notions of fairness can change over time. A car dealer charging a premium that is more than the price on the manufacturer's window sticker for a popular new model will quickly be accused of gouging, even if the adjusted price is a market-clearing price. By contrast, in the airline and hospitality industries where demand-based pricing has been practiced for several decades, consumers have become used to the idea that prices are linked to relative demand and no longer flinch when prices rise threefold or more for popular travel dates.

Markets will routinely view the pass-through of input cost increases as fair even if these cost increases pose an economic burden on the buyer. The reason is that it is generally accepted that sellers are allowed to preserve their profits in the face of rising costs. It is also generally considered fair for a seller to retain the benefits of input cost changes—there is no societal norm (at least in the United States) that would compel a seller to share his or her cost efficiencies with their customers.<sup>14</sup>

However, a sense of unfairness enters the moment that a seller exerts any market leverage to increase prices. It is one of the reasons why price increases

by public utilities—which, by virtue of being sole suppliers, are always viewed with great suspicion and subject to significant regulatory review to ensure that the utility is not merely using its market power to compel customers to pay more.

The form of a price change can have significant impact on perceptions of fairness. The elimination of a discount is viewed as a fair way to raise prices in cases where demand has risen. However adding a surcharge above the regular price is viewed negatively even if the net economic impact on the buyer is the same. Passing through a price increase via a change in product size—such as when the once-standard 64-ounce container of orange juice was reduced to 59 ounces—is generally seen as fair, perhaps because these forms of price change are less noticeable.

Fairness is often framed by the “shadow of the future.” For one-time transactions, consumers tend to be more willing to accept market rate pricing. However when they anticipate future interactions with the seller, the norms of fairness are applied more rigorously. Home Depot will not raise prices of building supplies after a hurricane, while one-off entrepreneurs who make bulk purchase in other markets and truck it in to the hurricane area will charge what the market will bear. Both are acting in a profit-maximizing manner, however Home Depot’s ability to realize short-term premiums is constrained by the long-term memory of the customer that Home Depot hopes to continue serving long after the short-term jobbers have gone back home.<sup>15</sup> And yet consumers are willing to do business with both sellers.

## MULTIPLE PARTICIPANTS IN THE BUYING PROCESS

The buying process frequently involves more people than just the customer since others participate by providing information, facilitating search, and influencing the purchase decision. Multiple participants are, in fact, the norm for purchases of high involvement goods characterized by complex offerings and, often, higher prices. Multiple participants are also common in most business markets where purchasing is managed by professional procurement managers using sophisticated information systems and aggressive negotiation tactics. The addition of individuals to the buying process complicates the

**EXHIBIT 3-4** Distribution of Value Across the Organization

	Marketing Manager	R&D Manager	Melt-Shop Foreman	Finish Mill Supervisor	Procurement Agent
Reduces Scrap Costs		+	+		
Reduces Labor Costs				-	
Additional Process Steps			+		
New Market Entry	+	+			

Adapted from Leveragepoint Innovations, Inc. website: [www.leveragepoint.com/index.html](http://www.leveragepoint.com/index.html)

job of value communications because it forces marketers to adapt and deliver multiple messages at different points in the process.

To illustrate how value communications can be adapted for multiple individuals in the buying process, we turn to the example of a chemical company attempting to sell the value of a new chemical additive for a steel mini-mill. Suppose that the chemical provided an incremental \$18 per ton in monetary value for the steel producer. However, the \$18 is an aggregate, company-level estimate that is not equally relevant to the different stakeholders in the customer organization (see Exhibit 3-4). For example, the marketing manager may appreciate the total value estimate, but he is impacted directly only by the fact that the chemical additive enables him to penetrate new market segments. The melt shop foreman will value the reduced scrap rate, worth \$2 per ton, but he will be less pleased about the \$5 per ton cost created by the additional process steps needed to incorporate the additive into the steel slurry. In the end, the finish mill supervisor may be negatively disposed toward the product because it lowers his organization's financial performance, even though the overall value is positive. Finally, the value impact for the procurement agent is neutral because her functional area has no operational involvement with the additive; she is only involved in negotiating the price.

The need to adapt marketing communications to the product and the customer's context makes creating effective value communications more challenging today than ever before. It is not sufficient to adapt the content of the message to the customer's learning needs at different stages of the buying process. You must also ensure that it is delivered to the right person at the right time in the buying process. Accomplishing this task requires meaningful insight about what value is created, how that value is generated across the organization, and when the participants in the buying process are ready to receive the value messages. Our research shows that successful value communications requires close coordination between marketing and sales—a trait lacking in many of the organizations we surveyed. For those companies that make the investment to strategically communicate value, the return, in the form of more profitable pricing, can be substantial.

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## Summary

Although price is often more important to the seller than to the buyer, the buyer can still reject any price offer that is more than he or she is willing to pay. Firms that fail to recognize this fact and base price on their internal needs alone generally fail to attain their full profit potential. An effective price communications strategy requires a nuanced assessment of the quantifiable benefits that a customer can realize from the transaction, as well as a careful understanding of the psychological factors that might influence a customer's decision. For most products, an economic value analysis

does not fully capture the role of price in the individual decision-making. Most customers do not approximate the image of a fully informed "economic individual," who always seeks the best value in the market regardless of the effort required. Therefore a pricing professional's analysis must go beyond the economic value to an understanding of how the buyer's understanding of value—and their willingness-to-pay—can be shaped and influenced through the effective leveraging of the psychological aspects of pricing described in this chapter.

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## Price Structure Tactics for Pricing Differently Across Customer Segments

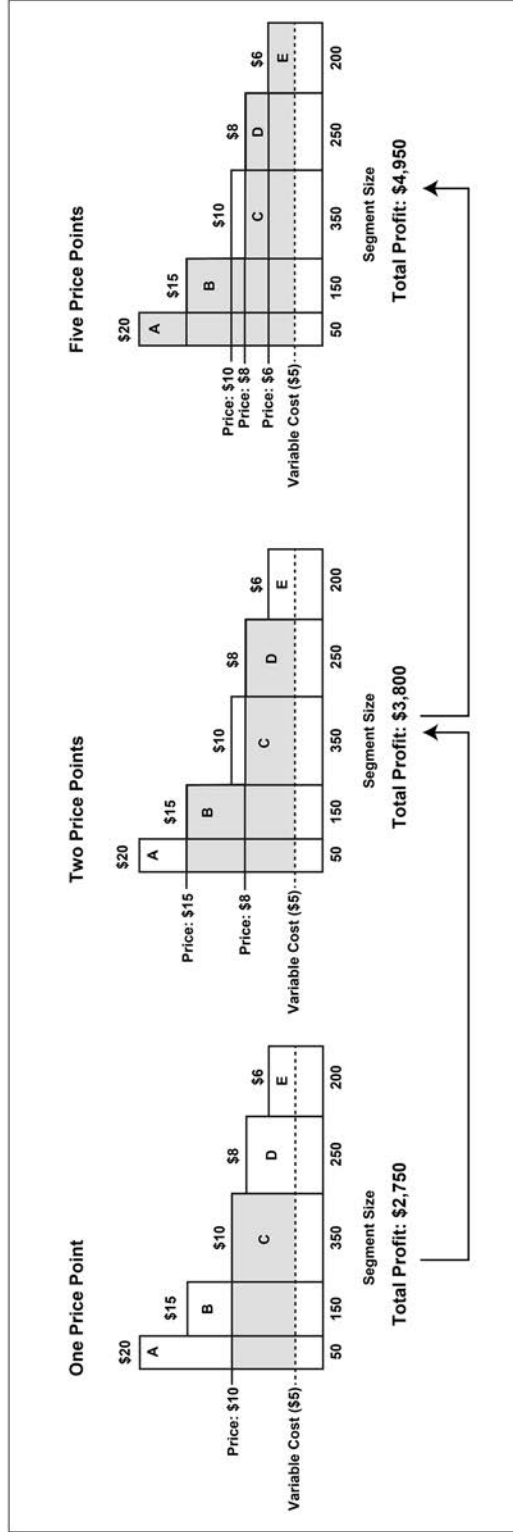
*Discovering in every man that which distinguishes him from others is to know him.*  
Hermann Hesse<sup>1</sup>

After developing products or services that create value and making customers aware of it, a marketer must determine how most profitably to capture a share of that value in both volume and margin. The challenge is that individual customers will value the differentiating features of products and services very differently due to differences in their abilities to pay, their subjective preferences, their end-use applications, and their prior experience with the product category. Moreover, the timing of customers' needs, the speed of their payments, and the level of service and support they require can drive significant differences in the cost to serve them. When a company tries to serve all customers with one price, or even with a standard markup over cost, it is invariably forced to make large trade-offs between volume and margin, with gains in volume requiring either lower prices or higher costs. Fortunately, a well-designed price structure can substantially mitigate that trade-off.

Except for highly competitive commodities, charging the same price per unit is rarely the best way to generate revenues. A far more profitable strategy requires creating a structure of prices that aligns with the differences in economic value and cost to serve across customer segments. The goal is to capture more revenue from sales where value or cost to serve is higher, while accepting lower revenue to earn additional profits from incremental volume to customers for whom value is less or the cost to serve them is low.

To illustrate the huge benefits of a well-defined segmented price structure, suppose that a supplier faced five different segments, all willing to pay a different price to get the benefits they sought from a product (see Exhibit 4-1). Segment A with sales potential of 50,000 units is willing to pay \$20 for the firm's product. Segment B with sales potential of 150,000 units is willing to pay \$15, and so on. What price should the firm set? The right answer in principle is whatever price maximizes profit contribution. If you calculate

**EXHIBIT 4-1 The Incremental Contribution from Segmented Price Structure**



the profit contribution at each of the five prices assuming a variable cost of \$5 per unit, the single price that produces the maximum contribution (\$2,750) is \$10.

However, a single-price strategy clearly leaves excess money on the table for buyers who are willing to pay more: Those willing to pay \$20 and \$15. At the price of \$10, those high-end buyers are enjoying a lot of what economists call “consumer surplus.” The firm would be better off if it could capture some of this surplus by charging them higher prices. The second problem is that the supplier leaves nearly half of the market unsatisfied, even though it could serve those customers profitably at prices above the \$5 per unit variable cost.

For industries with high fixed costs, serving those additional customers is often very profitable and, when they constitute large amounts of volume, can be essential for a company’s survival. Railroads could not maintain, let alone expand, their costly infrastructures without a segmented price structure. Railroad tariffs are designed to reflect the differences in the value of the goods hauled. Coal and unprocessed grains are carried at a much lower cost per carload than are manufactured goods, resulting in a much lower contribution margin per carload. Still, the large volumes of coal and grain transported enables that low-priced business to make a substantial contribution to a railroad’s high fixed-cost structure. If railroads were required to charge all shippers the tariff for manufactured goods, they would likely lose shippers whose commodities would no longer be competitive on a delivered-cost basis and so would lose that profit contribution. On the other hand, if railroads had to charge all shippers the tariff currently charged for a carload of unprocessed grain, their systems would reach capacity before they generated enough contribution to cover their fixed costs and become profitable. Freight railroads survive and prosper by leveraging their capacity to serve multiple market segments at value-based prices for each segment.

Companies that have a large market share but refuse to serve the lower-value segments of a market take a risk in doing so. In his book, *The Innovator’s Dilemma*, Clayton Christensen cites numerous examples of companies that failed to meet demand from a potentially large, but lower-value segment in a market that they otherwise dominated. Invariably, someone eventually addressed that need and used it as a base to partially support the fixed cost investments necessary to compete for business in higher margin segments.<sup>2</sup> For example, Xerox owned the high end of the copier market. It lost that dominant position only after companies that had entered at the bottom of the market developed service networks of sufficient size to support sales of large, higher-priced copiers, such as those bought by copy centers that required quick service to minimize downtime.

How many segments with different price points should a supplier serve? To return to our illustration, Exhibit 4-1 shows that if the firm were able to set two price points serving two general price segments—high-end buyers willing to pay \$15 or more, and mid-level buyers willing to pay \$8 or more—it could increase profit contribution by 40 percent. But if the supplier could charge separate prices to each of the five market segments, it could increase profit contribution by 80 percent relative to the single price strategy! In principle, more segmentation is always better. In practice, the extent of price segmentation is limited by the ability of the seller to manage the

complexity of managing across multiple segments and to enforce the segmentation at an acceptable cost.

## **CHALLENGES THAT CAN UNDERMINE SEGMENTED PRICING**

Segmentation is much more challenging for pricing than for other aspects of marketing because customers to whom you intend to charge a higher price have a strong incentive to undermine it. They will not freely identify themselves as members of a relatively price-insensitive segment simply to help the seller charge them more, but will try to disguise themselves as customers who should qualify for a lower price. Channel intermediaries too can undermine a segmented pricing strategy by buying the product intended for delivery to customers entitled to a lower price but then actually diverting it for resale to customers targeted to receive a higher price. Commonly referred to as gray-market sales, they create a huge challenge for companies serving international markets because distributors in countries where prices are lower cross ship products to ones where prices are higher. A manufacturer then loses higher-priced sales in the high-value country due to gray-market competition from its own products that have been parallel imported from lower-priced countries. And, to add to the insult, sales are lost even in the low-price country due to shortages that develop when products are diverted away from the low-price market.

Gray-market diversions by channel intermediaries can undermine not only different pricing by region but also by application. There are examples where a specific drug can have two different uses with correspondingly two different levels of clinical value delivered. For example, a drug used to treat a high-risk disease like cancer might also be useful for treating eye irritation. The challenge for a pharmaceutical company is to develop a strategy that allows it to charge differently depending on how the drug is being used. One common tactic is to introduce two versions of the drug, each with a unique brand name and dosing guidelines, even if the active ingredient is the same. The challenge, of course, is that some enterprising physicians might purchase the cheaper version of the drug, adjust the dosing to achieve the same result in the higher clinical-value setting, and pocket the difference in cost of the drugs used in the procedure.

In markets where sales are made directly, without a channel intermediary, it is easier to charge different prices to different customers. Recognizing the huge potential for profit improvement from aligning price with value, many companies adopt flexible pricing policies, empowering sales reps and sales management to discount prices for customers whom they perceive to be more price sensitive, while charging higher prices when the customer is unaware of better alternatives or perceives that what differentiates the offer is worth a higher price.

Flexible pricing can work in markets where customers buy a complex product or service very infrequently, such as when they are purchasing funeral services for a recently departed relative or a business hires a law firm to defend it against a novel civil suit. Customers making infrequent purchases, especially of products that are difficult to compare prior to purchase, are often uninformed about the differences in price and features among competitors and about the value that those differences might create for them. They must

rely on the supplier for advice about what to buy, which leads them to reveal information to the supplier that enables the supplier to judge their relative price sensitivity with some accuracy.

Staying flexible in negotiating customer-specific prices in this way can improve both revenue and profitability when selling to uninformed buyers. It has proven horribly counterproductive, however, for setting prices for customers with whom a seller has, or hopes to establish, an ongoing commercial relationship. The problem arises because buyers, especially those who are professional purchasing agents, learn over time how to manipulate a seller's flexible pricing policy and will do so aggressively to gain competitive advantage, or to avoid being put at a disadvantage. Moreover, sales reps learn that it is easier to make a case to their own management for why some customer needs a bigger discount than it is to justify prices to buyers where access to decision-makers is more limited and the real purchasing process less well understood. Soon, a firm's negotiated prices become aligned with differences among buyers' ability to negotiate and manipulate the seller's expectations rather than with differences in value received and cost to serve. Flexible pricing in this case undermines rather than reinforces profitability.

To prevent losing control of pricing to entrepreneurial channel intermediaries or to customers who are the smart negotiators, a company must understand how drivers of value and cost to serve differ across customers and develop price structures that align price levels proactively to reflect those differences. In the next chapter, we will describe how to define price policies proactively for managing price exceptions without undermining the integrity of a price structure. The balance of this chapter is devoted to explaining how to create a segmented price structure that distinguishes between applications or customer types that should be priced differently in order to optimize profitability. There are three mechanisms that one can use, individually, but more often in combination, to form a segmented price structure: *Offer configurations*, *price metrics*, and *price fences*.

## OFFER CONFIGURATIONS

When differences in the value of an offer across segments is caused by differences in the features and services that customers need or value, a seller can segment the market by configuring different offers consisting of different bundles of features and services for different segments. Using offer configurations to implement segmented pricing requires minimal enforcement of price differences because customers will self-select the offers that determine their prices. An airline's segmented price structure (see Exhibit 4-2) enables passengers to choose freely whether they want to pay only the most discounted price, want to pay a little more for the ability to check a bag or board early enough to get overhead space, or need the ability to cancel or change flights. The price structure also includes separate *à la carte* charges for priority seats that are closer to the front of the plane (enabling faster exit) and have more leg room. Additional categories (Refundable and Business/First) afford travelers more services such as flexibility and privileged bag delivery.

To create an effective bundled offer structure, one must first determine which features and services the firm should include in bundles, rather than pricing each element *à la carte* and leaving customers to customize their own

## EXHIBIT 4-2 Segmented Price Structure in Airlines

Cabin of Service	Main	Main	Main	First
Itinerary Changes ( <i>fare difference may apply</i> )	Domestic—\$200 USD	Domestic—\$200 USD	No Change Fee	Domestic—Varies
Checked Bags Included	No	Group1	Group1	Priority
Boarding Priority	No	No	Yes	Yes
Same-Day Standby	No	No	Yes	Yes
Same-Day Flight Change	No	No	Yes	Yes

offers. There are multiple arguments against pricing all individual features and services separately. A single price for a bundle of features and services reduces transactions costs for both customers and sellers. The costs to make and deliver most products and services increase with the number of variations allowed, although technology is reducing the cost of mass customization. Lastly, research shows convincingly that people are less sensitive to the cost of value-added features and services when bundled as a single expenditure.<sup>3</sup> Still, something that is particularly high-cost or difficult to provide in greater quantities (e.g., the best seat locations) should be charged separately from any bundled price to ensure that customers who most value that feature can be confident that it will be available to them at some price while simultaneously maximizing the seller's income from that feature.

### Optimizing the Structure of Offer Bundles

Creating bundles is simple when customers targeted for higher prices value some feature, like the ability to make changes in an airline ticket, which other customers do not. By including that feature only in the higher-priced bundle, high-value customers (e.g., business travelers with schedules subject to change) choose to pay the higher fare. Sometimes value-adds can be used, to attract the lower-value customer. When they have capacity, airlines make seats available to tour operators at prices lower than their lowest published fares with the proviso that the airline seat is sold only as part of a bundle including other items such as tickets to tourist attractions and nights in tourist hotels. That bundle insures that those tickets will not end up being sold to non-tourists who otherwise could have been sold a seat at a higher fare.

Cable TV operators create different bundles focused on families, sports enthusiasts, and movie buffs that simply include types of programming that they value most. The challenge occurs when different customers value the same features and services enough to make sales to both profitable, but they value them differently. Segmenting by bundled offer configurations can still be more profitable than pricing elements separately *if different segments of customers simply rank the importance of features differently that they would like to have in a bundled offering*. The following example illustrates this principle.

Sports channels create an ideal opportunity for bundling to maximize profitability. Some sports enthusiasts highly value “fight sports” like boxing and mixed martial arts. They may also value access to “team sports” like baseball and soccer, but to a lesser extent than team sport enthusiasts do. Team sport enthusiasts have exactly the opposite ranking. They will subscribe to a channel or a sports package of channels primarily for the team sports, but

would also value the occasional “fight sport”—but would not value a subscription as much as “fight sport” enthusiasts do. The challenge is to maximize income from these two segments combined, since, with most costs fixed, there is a large return from maximizing total revenue by getting them both to watch both types of sporting events.

Now let’s make the pricing challenge a bit more complicated. Let’s say that there are many more team-sport broadcasts than fight-sport broadcasts, so that it is possible to charge more to both segments for team-sport access. Based upon past research and experimentation, assume that those pricing cable TV options believe that the subscription prices in Exhibit 4-3 represent roughly the acceptable prices that would optimize revenue from each segment for access to each type of event. Now, how could a pricing manager maximize revenue? (To simplify the illustration, we assume that the payment to the teams for broadcast rights is a percentage of revenue rather than a variable cost per subscriber so that everyone is aligned with revenue maximization as the goal.)

The maximum viable price per event would be \$18/month for a fight-sport package and \$33/month for a team-sport package. That strategy would, however, exclude a lot of potential viewers and their revenue. An alternative that would not restrict the market would be to charge \$6/month for a fight sports subscription and \$25/month for a team sports subscription—for a total of \$31/month. That option would slightly increase total revenue and overall customer satisfaction. But there is a still better strategy. Can you see it?

Instead of offering a price structure with a separate price for fight sports and team sports, observe what happens if the seller offers a combined all-sports bundle? They could then charge \$39/month and still get both segments of sports enthusiasts to subscribe earning \$8/month more revenue per subscriber than if they set prices for the individual elements low enough to generate the same volume of subscriptions. So, should cable companies force customers to buy such bundles. Some do, but the lack of choice annoys their customers. A better option is to offer the all-sports bundle at \$39/month and the option to buy fight sports for \$18/month and team sports for \$33/month. Not only does that open the market for what may be some customers who only value one or the other, but it establishes in the customer’s mind a reference value for the package elements separately. Even if few people buy the separate options, the company can advertise that buyers of the all-sport package can get both streams of shows that would individually sell for \$51/month for the low discount price of only \$39!

**EXHIBIT 4-3 Revenue Optimizing Subscription Pricing by Segment**

Segment	Fight Sport Boxing, MMA	Team Sport Baseball, Soccer
Fight Sport Enthusiasts (30%)	\$18/month	\$23/month
Team Sport Enthusiasts (70%)	\$6/month	\$33/month

In practice, there are often more than two segments, segments of very different sizes, and more than two types of products to bundle. Maximizing profit contribution requires building a spreadsheet or employing a complex optimization model to evaluate bundling alternatives.<sup>4</sup> The principle, however, is the same for bundling features in auto packages, items to include in the four-course dinner special, items in a vacation package, or spots for advertising at different times embedded in different shows on a television network. The key is to bundle elements that are valued differently by different segments, so long as the incremental revenue earned from inducing more customers to buy an element of the bundle exceeds the incremental cost to supply it. In principle, one could maximize revenue from three segments with one bundle containing three different elements, each valued most highly by one of the segments.

### **Designing Segment-Specific Bundles**

Bundling can also facilitate segmented pricing, thus increasing profitability, when different customer segments have different price sensitivity for a core product or service (for example, lodging at a popular vacation spot). When it is possible to find features or services that one segment values highly and another does not (for example, access to a pro-quality golf course or a kids' club where children can be left safely and entertained), it is easy to design segment-specific pricing by bundling. The golfer evaluates the sum of the room cost plus the golf cost in figuring the cost of the vacation. If the golfer values lodging at this location by \$100 per night more than the family, he will pay up to \$100 more per day for greens fees than he would at an equal quality course in a less desirable location. (Assuming, of course, that no cheaper but equal quality course is available near this location.) Since the family did not come to play golf, they are unaffected by high greens fees.

As rewarding, but often overlooked, is the potential for bundling value-added features and services to attract customer segments that require a lower price to win their patronage. Although they pay a lower price, their purchase volume may, nevertheless, be profitable, especially during off-peak periods or economic downturns when excess capacity would otherwise remain unused. Simply cutting prices to win their business would, however, make it difficult to continue charging other customer segments a higher price and could cheapen the image of the brand. Bundling a "free" or low-cost service or feature specifically preferred by this segment, however, can improve the value proposition for that segment without having to cut the offer price explicitly.

For example, the resort hotel could charge a higher price for the room but bundle the kids' club free for one child with each paying adult, admit children free at the breakfast buffet, or provide a shuttle and discount tickets to nearby family-friendly entertainment. Since the golfers would find none of this worthwhile, the attraction to the buyer and the added cost to the seller are limited to the targeted segment. Similar bundles exist in business-to-business markets. Companies that cannot discount prices to small businesses without facing demands for lower prices from larger customers may offer their price-sensitive small business customers low-cost financing, free software for better inventory management, or anything else that they would value but that large company customers would not want.



There is an alternative to adding a feature that raises the value of the discounted offer to only the low-price segment. That is to add a feature to the lower cost offer that kills value for the higher-priced segment without affecting the value to the discount segment. Dick Harmer, a former colleague of ours, gave this practice the memorable name “selective uglification.” Chemical companies often do not have separate lines for making “food grade” and cheaper “industrial grade” chemicals. They simply add something to the industrial grade that makes it no longer acceptable for food manufacturers and consumers. A Saturday night stay requirement for a discount airline ticket is another example, since it has no effect on the pleasure traveler who wants the trip to include the weekend anyway, but precludes most business travelers.

### **Unbundling Strategically**

While bundling can be a profit-enhancing strategy for segmentation, it often has the opposite effect when variable cost services are bundled simply to differentiate an offering. For example, a business-to-business equipment company might try to convince customers to pay more for its machines by bundling the promise of faster warranty repair service and free delivery anywhere, and an airline might hope to charge more for its tickets because they include free baggage handling and agent assistance with reservations. Such price-offer structures often undermine rather than enhance profits and can be fatal to companies that cling to them in competitive markets for two reasons.

The first problem is that the cost to provide bundled service can be widely different across customers. Customers who have a high need for the bundled services gravitate to the companies that offer them for free. As companies gain share among these high cost-to-serve users, the average cost to deliver the bundle increases. If they try to add the increasing average service cost to the price, they begin losing sales to customers who are not high-service users. If they avoid raising the price of the bundle to reflect the increasing cost of the service, the increasing cost erodes their margins. The second problem is that customers often fail to recognize the value of differentiating services unless they have a price attached to them.<sup>5</sup> Even when included in a bundle, the price assigned to the unbundled services draws attention to their value, making the bundled price appear to be a better deal relative to the sum of the component parts.

Unless the cost to deliver a service is trivial relative to the overall value of the offer, bundling optional services for free will undermine profitability. Unbundling them as many airlines have done for baggage handling or for using an agent to make reservations, is in fact strategically essential when facing intense competition. This can be accomplished either by charging per-use fees for the services and/or by including them only in higher-priced bundles of services, as airlines commonly do if one pays for a full-fare airline ticket rather than a discounted one. Companies can unbundle the price structure without upsetting customers who have come to expect a costly service as part of the package by including it in the price but offering rebates for forgoing its use. For example, one company whose customers had become accustomed to placing orders on short notice for free raised its prices but, at the same time,

offered a discount of more than the price increase for orders that could be shipped with a delay of up to seven days. That enabled it to avoid disrupting relationships with customers who valued its ability to receive delivery quickly by more than the price premium, while enabling it to match competitive prices when necessary with a slower, lower-cost service option.

## PRICE METRICS

Not all differences in value across segments reflect differences in the features or services desired. Value received is sometimes not even related to differences in the quantity of the product consumed necessitating a price structure that involves earning revenues unrelated to the quantity of the product or service provided. For example, in the field of health care, both government and private payers are resisting paying for health care on a fee-for-service basis since delivery of more days in the hospital or more tests is often indicative of poor treatment choices, not better patient care. Both payers and health care providers, like Kaiser Permanente<sup>6</sup> and Mayo Clinic,<sup>7</sup> that have a proven ability to deliver care more cost-effectively than their peers, have benefited from adopting more value-based price metrics: Either a “capitation price” that covers all services required by a patient during a year, or a price per illness or procedure that covers all services required to treat a condition to a satisfactory outcome. By adopting such metrics, health care providers that can provide better care in less time or with less resources expended can avoid the difficult problem of having to convince payers to pay more per service to reflect the value of better treatment. It is much easier to make the case that they can get patients “back on their feet” for no more than the cost per patient of less effective providers.

The example just described involved changing from a feature-based to a benefit-based price metric. *Price metrics* are the units to which the price is applied. They define the terms of exchange—what exactly the buyer will receive per unit of price paid. There are often a range of possible options. For example, a health club could charge per hour of use, per visit, per an annual membership for unlimited access, or per some measure of benefit (inches lost at the waist or gained at the chest). The club might also vary those prices by time of day (low for a midday membership, higher for peak-time membership) or by season of the year to reflect differences in the opportunity cost of capacity. Finally, it might have a multi-part metric: An annual membership with an additional hourly charge for use of the tennis courts. These reflect the common categories of price metrics: Per unit, per use, per time spent consuming, per person who consumes, per amount of benefit received.

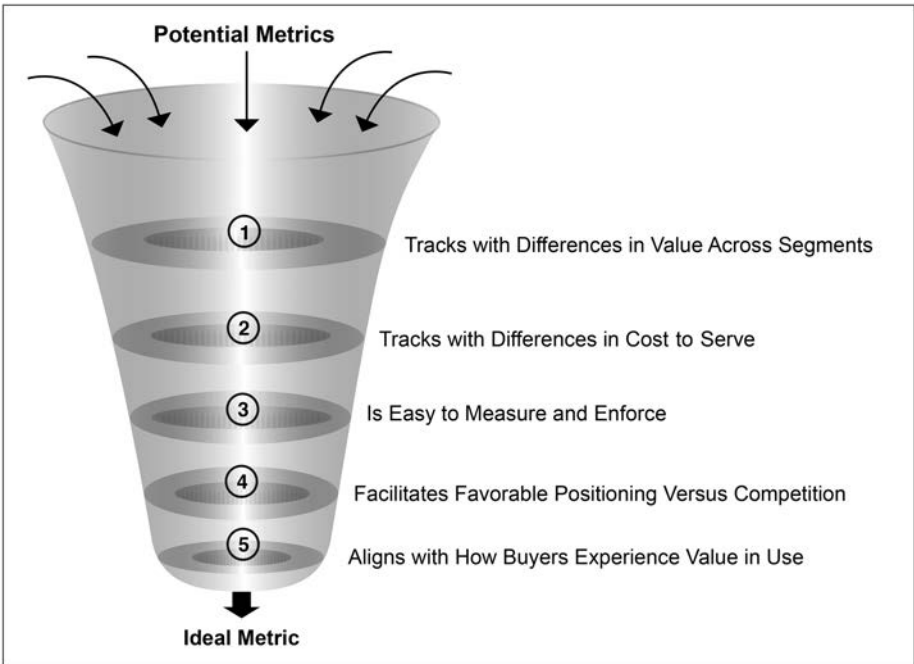
The problem with most price metrics is that they are adopted by default or tradition. For example, initially, software companies charged a price per copy installed on one server machine. In most cases, that led to a poor alignment with value. A few creative vendors recognized that when more users accessed the software, the buyer was getting more value. Consequently, they changed the price metric from a price “per server” to a price “per seat,” resulting in customers paying more when they had more users accessing the software. When this per-seat metric proved much more profitable for the computer-aided design and financial analysis companies that adopted it, other software companies copied it. For many of their applications, however, the number of users

still aligned poorly with value, leaving many customers underpriced while pricing others out of the market. The most thoughtful among them created still better price metrics. Leaders in manufacturing software replaced “price per seat” with “price per production unit.” Storage management software suppliers replaced “price per server” with a “price per gigabit of data moved.” Each time a company discovers a better metric than its competitors, it gains margin from existing customers, incremental revenue from customers formerly priced out of its markets, or both.

**Creating Good Price Metrics**

There are five criteria for determining the most profitable price metrics for an offering (Exhibit 4-4). The first criterion for a good price metric is that it tracks with differences in value across segments. While offer design facilitates pricing differently based upon what people chose to buy, a price metric not based upon units of purchase can facilitate different pricing for the same offer. For example, it often makes more sense to price drug per day of therapy rather than per milligram of the drug—as Eli Lilly did when it launched the antidepressant Prozac. Someone who requires only a 10-milligram dose gets no less value than someone who requires a 30-milligram dose to control the disease. Consequently, the company charged the same amount per pill regardless of the quantity of active ingredient it contained. Second, a good metric tracks with differences in cost to serve across customer segments. When customers’ behavior influences the incremental cost to serve them and those costs are significant, a profit-maximizing price metric needs to reflect that as

**EXHIBIT 4-4** Criteria for Evaluating Pricing Metrics



well. The cost to deliver a service is significant if it exceeds the cost of measuring, monitoring, and charging for differences in its usage. Marketers are often reluctant to charge for services, even when costs are significant, because they fear that they will become uncompetitive relative to others who do not charge for them. In fact, the opposite is the case.

Giving services for free attracts customers who are relatively higher users of them. Customers who want to minimize their inventories will gravitate to suppliers who offer free rush orders. Customers with a lot of employee turnover resulting in poor equipment maintenance, will gravitate to equipment suppliers who offer unlimited and quick on-site service. Customers who require only minimal amounts of service will, in similar fashion, gravitate to competitors offering little or no service but lower prices. As a result, marketers often find that they have differentiated their companies into lower profitability by improving their service offerings because they lack an appropriate metric to capture the value and discourage excessive use of services.

By adding charges for services, at least for those customers who are excessively costly to serve, companies are able to keep their core product prices competitive and avoid attracting a mix of customers who are costly to serve. As their markets have become more competitive, software suppliers added charges for formerly free online telephone support. Banks have added charges for small account holders to use a teller, or to access a teller machine more than some authorized amount. United Parcel Service has a \$3.80 charge for delivery to a residential address and a \$13.40 charge for shipments with a missing UPS account number or that require an address correction. These charges reflect the added cost of service for such packages, and the tendency for customers to cause those costs when they don't have to pay for them. Suppliers with separate service charges can price more competitively for the core business (the software, the checking account, the package delivery) to win the customers who are lower cost to serve, while still attracting higher cost customers if they are willing to pay for the higher service levels that they demand. In fact, companies with unbundled service can offer better service because they have a financial incentive to do so.

A third criterion for a good metric is that it is easy to implement without any ambiguity about what charge the customer has incurred. Profit-sharing or performance-based pricing are theoretically ideal ways to achieve the first two criteria for a good metric—tracking with value and cost. But in practice, these methods often end in rancorous debate about how profit or performance should be measured. At minimum, it is important to have absolute clarity in advance about what the metric is and who will measure it. That generally means that the metric must be objectively measured or verified.

We once helped to create a value-based metric at a company whose lubricant enabled manufacturers to cut through difficult materials more quickly with less wear on their tools. The company's product was an easy sell at launch when potential customers were operating at maximum capacity. Cutting materials faster increased capacity at this stage in the production process enabling many customers to increase revenues without additional capital cost. But when a recession hit, the value associated with increased capacity fell to zero. The value created by the company's product was reduced to the savings in labor costs and machine wear.

In theory, the price could be adjusted to reflect the customer’s capacity utilization. However, whenever price depends upon the customer voluntarily reporting information that will lead to a higher price, the potential for conflicts and misinformation is almost always too high. Fortunately we found a published industrial sales index that seemed to track well with the customers’ capacity utilization. The company continued to charge a price per pound for its product, but in return for lower pricing during the recession, the customers accepted automatic price adjustments monthly based upon changes in the level of an industry sales index.

The fourth criterion for evaluating a price metric is how the metric makes your pricing appear in comparison with competitors’ pricing and the impact of that on the perceived attractiveness of your offer. A new, hosted voice-recognition software that enabled a call center to process more callers without as much need for human intervention promised to create huge differential economic value for purchasers. Unfortunately, the traditional metric for pricing and evaluating hosted call center software was a price per minute of use. Since voice-recognition software processes callers faster, minutes using traditional call center software were not comparable to minutes using the voice-recognition software. A value-based price using that per-minute metric would need to be at least 72 percent higher than the price per minute for traditional software—which was inviting resistance from potential purchasers.

To overcome that, the company adopted a new metric: “Cost per call completed.” That metric naturally required conversion of the competitors’ cost-per-minute metric into a cost-per-call metric. While the new software was still more expensive, its percent price premium was much smaller (5 percent) when framed in terms of cost per call than in terms of a cost per minute (see Exhibit 4-5). Moreover, the differentiation value of the avoided operator intervention was much more dramatic when framed in terms of cost-per-call rather than cost-per-minute basis. The total cost per call completed was 11 percent less with the new software, despite being higher on a per-minute basis. While the favorable economics of the new software was exactly the same using either metric, the per-call basis of comparison made the sales effort a lot easier.

The fifth criterion for evaluating a price metric is how the metric aligns with how buyers experience the value in use of the product or service. The better the alignment—how a price metric fits the timing and magnitude of

**EXHIBIT 4-5 Hosted Call Center Software**

	<b>Traditional Caller-Response Software</b>	<b>Natural Voice-Recognition Software</b>	<b>Percent Difference</b>
Call length	7.2 minutes	4.4 minutes	-39%
Price of software per minute	\$0.90	\$1.55	+72%
Price of software per call	\$6.48	\$6.82	+5%
% of calls requiring human Intervention to complete	47%	12%	
Cost of operator intervention	\$3.50	\$3.50	
Cost per call completed	\$8.14	\$7.26	-11%

the customers' expenditure—the more attractive the offer. At a time when Blockbuster video stores dominated the market for movie rentals and Netflix was a struggling competitor, Netflix changed the metric in a way that made it much more competitive. Before most people had the capability to stream films online, movie renters liked the ability to get a movie on DVD immediately from Blockbuster rather than having to wait to get it by mail from Netflix. But movie renters disliked the Blockbuster price metric, a daily charge commonly around \$3.95, since the value was related to watching the movie once, not to how many days the DVD disk sat around before it was returned. When Netflix changed its metric to a monthly membership fee based on the number of films out at a time (\$8.99 per month for one DVD at a time, \$13.99 per month for two, and so forth), Netflix eliminated the inconvenience of having to acquire the movie shortly before watching it and return it shortly thereafter, or to pay what felt like a fine for extra days unrelated to the value sought from the purchase. Netflix's new metric was more compelling than the video store metric for a large share of the video rental market, while it also had the effect of discounting to the heavy users who watch many films per month. Consequently, Netflix's market share and profitability boomed.

In some cases it is not possible to achieve all of these criteria with one metric, but they can be achieved with a multi-part metric. Mobile telephone service providers charge a fixed monthly fee, capturing the value of simply having access to a phone when needed, plus charges for the amount of different services consumed (calls, text messages, internet time). Amusement parks sometimes have an entry fee plus a ticket charge for each ride. Banks may charge a monthly fee for an account, plus additional charges for transactions. Each of these structures is designed to strike a balance between service cost recovery, winning customers with pricing that is seen as aligned with value, and capturing more profit from those customers who are getting more value without losing those who are still profitable despite the need for lower pricing to retain them.

It should also be noted that, depending on the context, the criteria outlined above may need to be modified or added to. For example, in highly regulated markets such as utilities, health care, or insurance, any potential new price metric also needs to pass muster with regulators and legal requirements. In other markets, there may be well-established norms around fairness that may limit the application of new metrics. For example, while it is seen as fair for airlines and hotels to adjust prices relative to demand (with a tactic called yield management), raising the price of a taxi ride when it is raining outside is generally not viewed as fair, although several ride-sharing services at the time of writing have successfully challenged that norm.

### **Performance-Based Metrics**

An ideal price metric would tie what the customer pays for a product or service directly to the economic value received and the incremental cost to serve. In a few cases, called performance-based pricing, price structures can actually work that way.<sup>8</sup> Attorneys often litigate civil cases for which they are paid their out-of-pocket expenses plus a share of the award if they win, rather than for hours worked. Internet ads are usually priced based on the number of click-throughs rather than the traditional metric for advertising: Cost "per thousand" exposure. Systems that control the lights, heating, and cooling within office buildings are sometimes installed in return for contracts that

share the energy cost savings, rather than charges for the equipment installed. In each case, the price metric naturally charges customers differently for the same product or service based on differences in the value they receive.

Most importantly, performance-based pricing has the effect of shifting the performance risk from the buyer to the seller. General Electric (GE) used bundling to reduce risk when it launched a new series of highly efficient aircraft engines, its GE90 series. These engines promised greater fuel efficiency and power that could make them much more profitable to operate. The catch was a high degree of uncertainty about the cost of maintenance. Some airlines feared that these high-powered engines might need to be overhauled more frequently, thus easily wiping out the financial benefits from operating them. This undermined GE's ability to win buyers at the price premium that power and fuel efficiency would otherwise justify.

Rather than accept a lower price to account for a buyer's perceived risk, GE responded by changing the price metric. Instead of selling or leasing an engine alone, GE effectively rented aircraft engines for a fee per hour flown that included all costs of scheduled and unscheduled maintenance. Without the uncertainty of maintenance cost, GE90 engines quickly became popular, despite a price premium.

In many cases, however, performance-based pricing is simply impractical. It requires too much information and too much trust that the buyer will actually report the information accurately. It also leaves the buyer uncertain regarding the cost of a purchase until after it is used. In practice, therefore, marketers must design profit-driven price structures by finding measures that at least roughly predict the value a customer will receive and the costs to serve, even if the resulting price metric does not allow for a perfect correlation between price and value. Often the difference between a good and a great pricing strategy lies in finding, or creating, such measures.

### **Evolution of the Price Metric for Mobile Video Games**

As video gaming grew from being the passion of hard-core fanatics with dedicated equipment to a widely practiced pastime on practically any device with an internet connection, the challenges for pricing multiplied. How could a game developer optimize revenues from games with which some hard-core users engaged intensely while millions of others simply dabbled? And in a market with a huge and growing number of substitutes, how could a developer induce lots of players to try a game without giving away the value if it turned out to be highly engaging? Fortunately for game developers and the gaming category, game marketers have been particularly adept at adapting their price and revenue models to rapid changes in their market.

For several decades, video games were largely published for three mediums: Personal computers, TV-based gaming consoles, and portable gaming consoles.<sup>9</sup> The established consumer price metric for the industry was price per video game title, which resulted in the acquisition of a physical DVD or a cartridge containing the software. Customers were then free to play the video game as much or as little as they wished. Most games were designed to be played either in narrative form by a single individual

(as is the case with first-person shooter games) or in a multi-player format with several players in the vicinity of the same game console (as is the case in sports and combat titles).

Although the price-per-title metric served to recover development costs, it was far from optimal. Yes, price per title was easy to measure and consistent with how retailers liked to acquire products for resale, but it didn't really allow for differences in value across different segments of players. It didn't align with how a user might experience value when playing the game, and it didn't really track with cost to serve. It also did not lend itself to discounting to induce product trial. Unfortunately, given the developers' loss of control once the game was sold to a retailer, it was difficult to imagine how game publishers might overcome these limitations—although retailers tried alternative pricing schemes such as membership fees to borrow games and buy-back options to induce heavy users to try new games.

The success of the Apple and Android smartphones beginning in the mid-2000s created a relatively huge new market for games—there are an estimated 2.9 billion smartphone users worldwide,<sup>10</sup> compared to an estimated 529 million game consoles sold from 2008 to 2016<sup>11</sup>—and new opportunities to engage more directly with game players on an ongoing basis. In the United States, for example, close to 80 percent of consumers with mobile phones were using smartphone models at the end of 2015.<sup>12</sup> Prior to smartphones, mobile devices lacked the high-performance computing and graphics-processing capability required for really engaging games. With a much larger potential market suddenly opening up, the traditional price elasticities of video games changed. The relatively huge installed base on this new platform created at least the possibility to sell many more units and to earn much more revenue at a lower price per sale than game publishers were earning selling games to people with dedicated game consoles. Still, the volume gain would have to be huge. Consider that while the average price of a game for the Nintendo 3DS console was \$40, a similar game title on the Apple Store<sup>®</sup> was priced at around \$2.<sup>13</sup>

The fundamental problem that the price metric didn't track well with how buyers experienced value remained. A game that people loved and kept them engaged for a long time could earn no more revenue than one that a gamer found interesting initially but tired of quickly. Fortunately, two other evolutions in technology opened opportunities for improvement. Access to cheap, high-speed internet ultimately became ubiquitous in most developed markets, allowing for online multi-player gameplay and the digital delivery of IP versus physical delivery through a retail store.<sup>14</sup> Even more important, platforms developed to enable in-app purchases that some creative game developers recognized could be used to make revenues track more closely with a gamer's engagement.

Publishers of popular, technically sophisticated, but previously expensive game titles soon realized that it was possible to compete with less sophisticated free titles by transforming the price structure of games to a "freemium" model, in which it is free for the end-user to download a game, and then pay for value delivered within the game. The next questions that each game developer needed to answer were: How do users experience value? and, What are the primary drivers of the differences in



value experienced? The answers would drive decisions, unique to each game, about how best to design product options and price metrics that would effectively drive revenues based upon value received.

The most sophisticated game publishers now either give away access to the game or charge a very low price to download it. They earn revenues reflecting the amount and intensity of players' engagement with the game as revealed by their purchases within three broad categories of virtual products offered within a game:

1. *Consumables* help a player to continue playing a game or to ascend to the next level in the game without the effort of earning it. They are "consumable" because once they are used, they can't be used again. Virtual poker chips in the game Zynga Poker, a category-leading title, is an example of a consumable available for purchase.
2. *Durables* are in-app purchases that help a player to succeed in the game but do not get consumed. An improved billiard cue for use in the 8 Ball Pool mobile game can be purchased to achieve greater shooting and spin precision, nicely mimicking the real-world experience for a high-end billiard cue.
3. *Personalization* enables the user experience to be customized—as the social media game Highrise, that lets users purchase clothes for their game avatar that don't directly impact gameplay but enable a more customized user experience.

Rather than initiate a credit card transaction for each purchase, games generally involve the purchase with real money of a digital currency used for making smaller purchases quickly. Some mobile video game publishers have taken game monetization and value capture a step further by paying gamers in digital currency to view online ads. When they do so, their ad network partners pay real money to the game publisher based upon views.<sup>15</sup>

By all accounts, this evolution of price metrics has been an extremely successful strategy for mobile game publishers. According to Distimo, a market research firm, in-game purchase revenue accounted for 79 percent of iOS mobile app revenue (and up to 94 percent in Asian markets) with only 21 percent coming from the traditional model of paying for the title upfront at the start of 2014.<sup>16</sup> More importantly, popular games that collect revenue from in-game purchases rather than from upfront purchases earn up to three times more revenue per game.<sup>17</sup>

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*Prepared by Junaid Qureshi, who is both an accomplished gamer and consultant at Deloitte Consulting LLP.*

### Tie-Ins as Metrics

A very common challenge for a company that sells capital goods is that the value of owning them can vary widely across segments based upon how intensely they are used. For example, a company that makes a uniquely efficient canning machine might like to sell it both to salmon packers in Alaska, who will use it intensely for only a couple months each year, as well as to fruit

and vegetable packers in California, who will use it to can crops all year round. One option would be to put a meter on the machine to record every time that machine went through one cycle. That, in fact, is how Xerox priced its copiers at launch, by leasing them at a price based upon machine usage and refusing to sell them outright.

For the canning machine manufacturer, a usage-based lease was not practical because it did not have service people at the client site on a regular basis to monitor usage. Instead, a more practical metric was a tie-in sale that contractually required purchasers of the canning machine to use it only with cans sold by the seller at a premium price. Thus, the true cost of the machine was not just its low explicit price but also the net present value of the price premiums paid for the tied-in cans. Since buyers who used the machine more intensely must buy more of the tied-in product to use it, they effectively paid more for the asset.

Tie-in sales like those that tied purchase of cans contractually to purchase of the machine were quite common until 1949, when the federal courts decided that such contracts were not enforceable under U.S. antitrust law because of their impact on the otherwise freely competitive market for the tied commodity.<sup>18</sup> Although contractual tie-ins are no longer enforceable, companies still frequently use technological design to tie a unique consumable to an asset—often referred to as the proverbial razor-and-razor blades strategy. For example, some manufacturers of document printers will often price the printer—the asset—low to drive adoption of the product. The corresponding replacement ink cartridges—the consumables—are often designed with proprietary technology to fit uniquely with the asset and carry high wholesale margins. The key to the success of this business model is that the pricing allows the seller to build a significant installed base of users, and earn significant profits from users who use—and benefit from—the printers the most.

In service-based companies, tie-in contracts are frequently used to reduce the cost for new buyers to try their services. Wireless phone providers offer a digital telephone for a nominal fee, and sometimes free, if the buyer agrees to purchase a long-term service contract to use the company's wireless network for 12 or 24 months. Satellite entertainment companies offer households a satellite dish and receiver unit for a greatly reduced price when buyers agree to subscribe to a higher-priced entertainment package of channels for a minimum of 12 or 24 months. These packages can be particularly effective for low-knowledge buyers who perceive significant risk in investing in a new and little-known technology—and then developing them into loyal buyers who become accustomed to the firm's technology and programming.

### **Value-Based Pricing Finances Hamlet's Castle**

The seeds of value-based pricing were planted centuries ago with the first documented use of value-based pricing metrics to improve profitability. The use occurred in the 15th century when Erik of Pomerania, King of the United Kingdom of Scandinavia, summoned to Copenhagen a group of merchants from the powerful German Hanseatic League, which at the time dominated nearly all trade in northern Europe. He informed them that henceforth, he intended to levy a new toll: Every ship wishing to sail

past Elsinore, whether on its way out of or into the Baltic, would have to dip its flag, strike its topsails, and cast anchor so that the captain might go ashore to pay the customs officer in the town a toll of “one English noble.”

Nobody challenged the right of the King of all Scandinavia to impose a toll of this kind. After all, mere barons who owned castles on the banks of the Rhine, the Danube, and other major European waterways had for centuries forced all passing ships to pay a similar toll. However, its relative heaviness, combined with the obligation to cast anchor at Elsinore in order to hand over the money, made it highly unpopular. Erik foresaw that if he also established a proper town at Elsinore, sea captains, after paying their toll and then waiting for a favorable wind, would welcome an opportunity to replenish stocks of water, wine, meat, vegetables, and whatever else they needed. In other words, even if they had to pay a toll, calling in at Elsinore could have its attractions—all he had to do was provide them.

Elsinore’s fortunes changed in 1559 with the accession to the throne of Frederik II, aged 25. He was young, ambitious, and entertained imperialistic ideas about reconquering Sweden and restoring the Nordic Union. Consequently, he declared war, and it dragged on for seven years. Like all wars, it was a severe drain on Denmark’s finances. By 1566, the situation was so serious that Frederik II and his councillors decided as a last resort to enlist the help of a man with special talents named Peder Oxe. Oxe was acknowledged to be a financial wizard, which was just what Frederik needed.

Erik of Pomerania’s toll of one English noble per ship had long been regarded by skippers and ship owners as grossly unfair. After all, ships were of so many different sizes, carried so many different cargoes, and according to nationality, had various interests and affiliations. The system had also been proving increasingly disadvantageous from the Danish king’s point of view. The first four or five kings after Erik of Pomerania had therefore continually tried to introduce amendments of one kind or another, and these in turn made it necessary to introduce various special concessions. Some nationalities were exempted completely and others enjoyed preferential treatment in certain respects.

By this time, the basic toll had been raised from one to three nobles per ship, but it was still far from being a satisfactory system. Peder Oxe realized that the only answer lay in a radical reform of the whole basis upon which the tolls were calculated. Henceforth, instead of a simple toll per ship, payment must be made, he suggested, on the basis of the cargo carried. To start with, two Rixdollars per last (a “last” being approximately two tons of cargo). Soon this was changed to an even subtler and more flexible system: A percentage of the *value* of each last of cargo.

The King held the right of pre-emption, that is to say an option to buy, if he so chose, all cargoes declared. This royal prerogative encouraged the captain of a ship to make a correct declaration. Naturally, if he thought the King might be interested in buying his cargo, he was tempted to put a high value on it. However, in doing so, he ran the risk that His Majesty might be totally disinterested, in which case he would have to

pay a duty calculated on this high valuation. Conversely, if he played safe and declared a low value in the hope of getting away with paying a low duty, the King might decide to buy the whole consignment which could leave the captain seriously out of pocket. Summoning Peder Oxø to reorganize the levying of the Sound Dues proved to be a masterful stroke. Within a few years, the King's income from this source practically tripled. At the age of 38, Frederik II married his 15-year-old cousin, Sophie of Mecklenburg, and in 1574 embarked on what was to become the major architectural project of his life, the building of a new castle at Elsinore.

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Abridged from *Hamlet's Castle and Shakespeare's Elsinore* by David Hohnen (Copenhagen: Christian Ejlertsen, 2000).

## PRICE FENCES

Sometimes value differs between customer segments even when all the features and measurable benefits are the same. Value can differ between customer segments and uses simply because they involve different formulas for converting features and benefits into economic values. The difference may be tied to differences in income, in alternatives available, or in psychological benefits that are difficult to measure objectively. Unless there is a good proxy metric that just happens to correlate with the resulting differences in value, the seller needs to find a price *fence*: A means to charge different customers different price levels for the same products and services using the same metrics.

Price fences are fixed criteria that customers must meet to qualify for a lower price. At theaters, museums, and similar venues, price fences are usually based on age (with discounts for children under 12 years of age and for seniors) but are sometimes also based on educational status (full-time students get discounts), or possession of a coupon from a local paper (benefiting locals who know more alternatives). All three types of customers have the same needs and cost to serve them, but perceive a different value from the purchase. Price fences are the least complicated way to charge different prices to reflect different levels of value. Unfortunately, while simple to administer, the obvious price fences sometimes create resentment and are often too easy for customers to get over whenever there is an economic incentive to do so. Thus, finding a fence that will work in your market usually requires some creativity.

### Buyer Identification Fences

Occasionally pricing goods and services at different levels across segments is easy because customers have obvious characteristics that sellers can use to identify them. Barbers charge different prices for short and long hair because long hair takes more time to cut. But, during non-peak hours, barbers also cut children's hair at a substantial discount, despite the fact that children can be more challenging and time-consuming. The rationale in this case is entirely to drive business with a discount for a more price-sensitive segment. Many

parents view home haircuts as acceptable alternatives to costly barber cuts for their children, even though they would never bear the risk of letting their spouses cut their own hair. For barbers, simple observation of the customer segment, children, is the key to segmented pricing.

Issuers of credit cards resort to far more sophisticated, proprietary models to anticipate the price sensitivities and costs to serve for different types of consumers. Some are more sensitive to the annual fee, some to the interest rate, and others to the frequent flyer miles or other benefits they can earn. On the cost side, some consumers are more likely to default or to use their card only infrequently, thus generating fewer fees from retailers for processing charges. Finally, the companies can see from consumers' credit reports what competitive cards they hold and can estimate their annual fee and interest rates, thus determining the reference value of the next best competitive alternative (NBCA). Based upon these analyses, credit card companies very finely segment their potential customer base and send out different offers that optimize the expected profitability of each segment. The metrics are the same, but the levels vary depending on which metric the issuer can use most cost-effectively to capture the most value. Rarely is identification of customers in different segments straightforward. Yet, management can sometimes structure price discounts that induce the most price-sensitive buyers to volunteer the information necessary to identify them. Many service providers, from hotels and rental car companies to theaters and restaurants, offer senior discounts to those who will show an American Association of Retired Persons (AARP) card, Medicare card, or some other ID that confirms their eligibility. College students qualify for discounts on various types of entertainment because their low incomes and alternative sources of campus entertainment make them, as a group, price-sensitive shoppers. Seniors and students readily volunteer their identification cards to prove that they are members of the price-sensitive segment. Members of the less price-sensitive segment identify themselves by not producing such identification.

Even schools and colleges charge variable tuitions for the same education based on their estimates of their students' price sensitivities. Although the official school catalogs list just one tuition, it is not the one most students pay at private colleges. Many receive substantial discounts disguised as "tuition remission scholarships" obtained by revealing personal information on financial-aid applications. By evaluating family income and assets, colleges can set tuition for each student that makes attendance attractive while still maximizing the school's income.

Deal proneness is another form of self-induced buyer identification—especially through the use of coupons and sales promotions, a frequent tool of consumer marketers. Coupons provided by the seller give deal-prone shoppers a way to identify themselves.<sup>19</sup> Supermarkets and drug stores put coupons in advertising circulars because people who read those ads are part of the segment that compares prices before deciding where to shop. Packaged-goods and small appliance manufacturers print coupons and rebate instructions directly on the packages, expecting that only price-sensitive shoppers will make the effort to clip them out and use them for future purchases.<sup>20</sup>

Often a buyer's relative price sensitivity does not depend on anything immediately observable or on factors a customer freely reveals. It depends instead on how well informed about alternatives a customer is and on the

personal values the customer places on the differentiating attributes of the seller's offer. In such cases, the classification of buyers by segment usually requires an expert salesperson trained in soliciting and evaluating the information necessary for segmented pricing.

### **Purchase Location Fences**

When customers who perceive different values buy at different locations, they can be segmented by purchase location. This is common practice for a wide range of products. Dentists, opticians, and other professionals sometimes have multiple offices in different parts of a city, each with a different price schedule reflecting differences in the target clients' price sensitivity. Many grocery chains classify their stores by intensity of competition and apply lower markups in those localities where competition is most intense. Colorado ski resorts use purchase location to segment sales of lift tickets. Tickets purchased slope side are priced the highest and are bought by the most affluent skiers who stay in the slope-side hotels and condos. Tickets are cheaper (approximately 10 percent less) at hotels in the nearby town of Dillon, where less affluent skiers stay in cheaper, off-slope accommodations. In Denver, tickets can be bought at grocery stores and self-serve gas stations for larger discounts (approximately 20 percent less). These discounts attract locals, who know the market well and who are generally more price sensitive because the ticket price represents a much higher share of the total cost for them to ski.

A clever segmented pricing tactic common for pricing bulky industrial products such as steel and coal is *freight absorption*. Freight absorption is the agreement by the seller to bear part of the shipping costs of the product, the amount of which depends upon the buyer's location. The purpose is to segment buyers according to the attractiveness of their alternatives. A steel mill in Pittsburgh, for example, might agree to charge buyers the cost of shipping from either Pittsburgh or from Gary, Indiana, where its major competitor is located. The seller in Pittsburgh receives only the price the buyer pays, less the absorbed portion of any excess cost to ship from Pittsburgh. This enables the Pittsburgh supplier to cut price to customers nearer the competitor without having to cut price to customers for whom his Chicago competitors have no location advantage. The Chicago competitor probably uses the same tactic to become more competitive for buyers nearer Pittsburgh.

Trade barriers between countries once made segmentation by location viable even for products that were inexpensive to ship. As trade barriers have declined around the world, and especially within the European Union, the tactic has become less effective. For example, automobiles used to be sold throughout Europe at prices that varied widely across borders. German luxury cars sold in Britain were at least 20 percent more expensive than when sold just across the channel in Belgium. But after Britain joined the EU, brokers in Britain began to survey the continent for cars, which people could fly to pick up and drive home—or even have the broker bring it back for them. To fight back, some makers of German luxury brands, which are cheaper in Germany than in some other countries where they carry a more premium image, have used their warranties to enforce location fences. A car bought in Germany and imported to Britain cannot get warranty service

in the United Kingdom without paying an additional charge for warranty transfer to a British dealership.

### **Time-of-Purchase Fences**

When customers in different market segments purchase at different times, one can segment them for pricing by time of purchase. Theaters segment their markets by offering midday matinees at substantially reduced prices, attracting price-sensitive viewers who are not employed during the day at times when the theater has ample excess capacity. Less price-sensitive evening patrons cannot so easily arrange dates or work schedules to take advantage of the cheaper midday ticket prices. Restaurants usually charge more to their evening patrons, even when their peak demand is at lunch, because demand (in the United States, but not in Europe) is more price sensitive for the midday meal. Why? There are more numerous inexpensive substitutes for lunches than there are for dinners. A fast food meal or a brown bag, acceptable for lunch, is often viewed as a poor substitute for a formal dinner as part of an evening's entertainment.

*Priority pricing* is one example of segmenting by time of purchase. Innovative new retail products are offered at full price, or even at a premium. Over time, as product appeal fades in comparison to still newer competitive alternatives, buyers discount the product's value until they are willing to pay only a fraction of its original price for leftover models. This is common in the retail fashion and automobile industries, where customers with high incomes and low price sensitivity pay premium prices for the latest styles and models. Over time, as inventories age and novelty declines, prices are reduced in successive rounds of promotions to appeal to more price-sensitive buyers who are willing to wait for the opportunity to buy high-quality, but less trendy, inventory.

Priority pricing also applies in business-to-business purchases. A strategy of Intel has long been to introduce a leading-edge semiconductor at a premium price that reflects the higher performance level, and then adjust prices on its existing product lines to make them viable upgrades for less demanding applications, as well as to reduce the inventory of the now older semiconductors. Leading-edge original equipment manufacturer (OEM) computer manufacturers that produce and sell the fastest and latest computers to innovative professional buyers with low price sensitivity pay the price premium for the latest chip technology. More price-sensitive buyers who do not require the highest levels of performance are able to choose from a tiered selection of Intel semiconductors that vary in price and performance levels.

Predictable, periodic sales offering the same merchandise at discounted prices can also segment markets. This tactic is most successful in markets with a combination of occasional buyers who are relatively unfamiliar with the market, and with more regular buyers who know when the sales are and plan their purchases accordingly. Furniture manufacturers employ this tactic with sales every February and August, months when most people usually would not think about buying furniture. However, people who regularly buy home furnishings, and who are more price sensitive because of the reference-price and total-expenditure effects, know to plan their purchases to coincide with these sales.

Time is also a useful fence when demand varies significantly with the time of purchase but the product or service is not storable. This problem plagues airlines, hotels and restaurants, electric utilities, theaters, computer time-sharing companies, beauty salons, toll roads, and parking garages. Unable to move supplies of their products from one time to another, their only option is to manage demand to match supply by charging high prices when supply would otherwise exceed demand and lower prices when it is highly unlikely that the seller will face demand that exceeds capacity.

Pricing for travel through the Eurotunnel between England and France is an interesting application of segmented pricing for a product with fixed capacity. The channel tunnel allows transport of an automobile and its occupants between England and France for a flat price. Prices that allow travel at whatever time of day you choose are twice as high as during the off-peak evening and night periods. This reflects the opportunity cost of limited capacity. More interesting is the fact that rates increase with the time elapsed between the outbound and the return trips. Roundtrip use of the tunnel for a two-day, one-night visit from the United Kingdom to France costs from £53 per auto, while roundtrip use for a three- to seven-day visit costs from £79 at the same times of day. Clearly, this has nothing to do with cost or available capacity, so what drives it? The answer is that the value of having your own car with you on the trip versus having to rent one after traveling by plane or train increases with the length of the stay.<sup>21</sup>

### **Purchase Quantity Fences**

When customers in different segments buy different quantities, one can sometimes segment them for pricing with quantity discounts. There are four types of quantity discount tactics: Volume discounts, order discounts, step discounts, and two-part prices. All are common when dealing with differences in price sensitivity, costs, and competition.<sup>22</sup> Customers who buy in large volume are usually more price sensitive. They have a larger financial incentive to learn about all alternatives and to negotiate the best possible deal. Moreover, the attractiveness of selling to them generally increases competition for their business. Large buyers are often less costly to serve. Costs of selling and servicing an account generally do not increase proportionately with the volume of purchases. In such cases, volume discounting is a useful tactic for segmented pricing.

*Volume discounts* are most common when selling products to business customers. Steel manufacturers grant auto companies substantially lower prices than they offer other industrial buyers. They do so because auto manufacturers use such large volumes they could easily operate their own mills or send negotiators around the world to secure better prices. Volume discounts are based on the customer's total purchases over a month or year rather than on the amount purchased at any one time. At some companies, the discount is calculated on the volume of all purchases; at others, it is calculated by product or product class. Many companies give discounts for multiple purchases of a single model but, in addition, give discounts based on a buyer's total expenditure on all products from the company.

Although less common, some consumer products are volume discounted as well. Larger packages of most food, health, and cleaning products



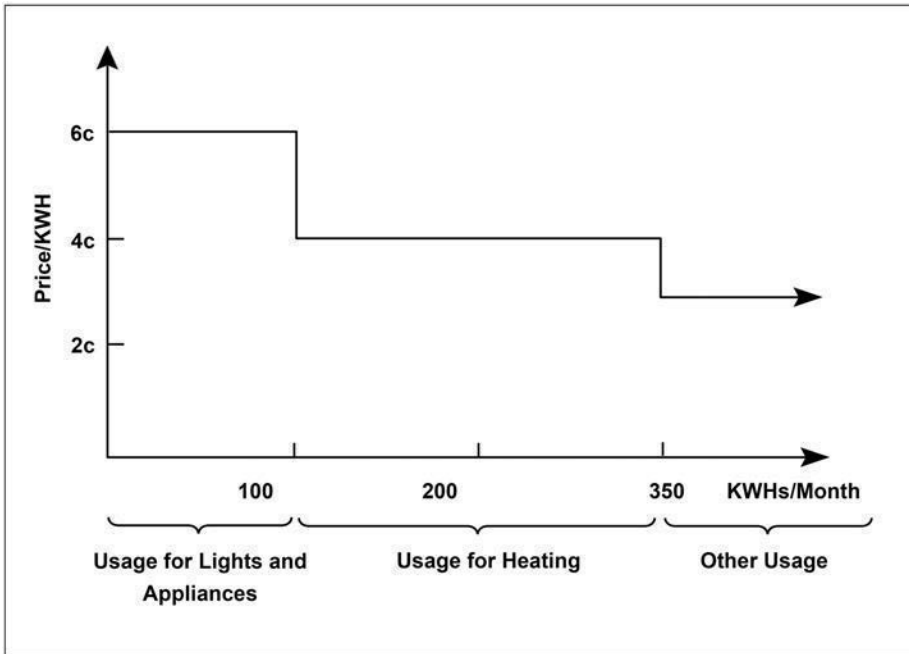
usually cost less per ounce, and canned beverages cost less in 12-packs than in six-packs. These differences reflect both cost economies for suppliers and the greater price sensitivity for these products by large families. Warehouse food stores, such as Costco, Sam's Club, and BJ's Wholesale Club often require consumers to buy in large-quantity packages to qualify for discounted prices.

Often sellers vary prices by the size of an order rather than by the size of a customer's total purchase volume. *Order discounts* are the most common of all quantity discounts. Almost all office supplies are sold with order discounts. Copier paper, for example, can be purchased for about \$20 per case of ten reams, but purchased individually it costs several dollars per ream. The logic for this is that many of the costs of processing an order are unrelated to the size of it. Consequently, the per-unit cost of processing and shipping declines with the quantity ordered. For this reason, sellers generally prefer that buyers place large, infrequent orders, rather than small frequent ones. To encourage them to do so, sellers give discounts based on the order quantity. Order discounts may be offered in addition to volume discounts for total purchases in a year, because volume discounts and order discounts serve separate purposes. The volume discount is given to retain the business of large customers. The order discount is given to encourage customers to place large orders.

*Step discounts* differ from volume or order discounts in that they do not apply to the total quantity purchased, but only to the purchase beyond a specified amount. The rationale is to encourage individual buyers to purchase more of a product without having to cut the price on smaller quantities for which they would pay a higher price. Thus, in contrast to other segmentation tactics, step discounting may segment not only different customers, but also different purchases by the same customers. Such pricing is common for public utilities, from which customers buy water and electricity for multiple uses and place a different value on it for each use.

Consider, for example, the dilemma that local electric companies face when pricing their product. Most people place a very high value on having some electricity for general use, such as lighting and running appliances. The substitutes (gaslights, oil lamps, and hand-cranked appliances) are not very acceptable. For heating, however, most people use alternative fuels (gas, oil, coal, and kerosene) because of their lower cost. Utilities would like to sell more power for heating and could do so at a price above the cost of generating it. They do not want to cut the price of electricity across the board, however, since that would involve unnecessary discounts on power for higher-valued uses. One solution to this dilemma is a step-price schedule. Assume that the electric company could charge a typical consumer \$0.06 per kilowatt-hour (KWH) for general electricity usage but that it must cut its price to \$0.04 per KWH to make electricity competitive for heating. If the company charged the lower price to encourage electricity usage for heating, it would forgo a third of the revenue it could earn from supplying power for other uses. By replacing a single price with a block-price schedule, \$0.06 per KWH for the first block of 100 KWH and \$0.04 for usage thereafter, the company could encourage people to install electric heating without forgoing the higher income it can earn on power for other purposes. To encourage people to use electricity for still more uses, such as charging their car batteries during off-peak hours,

EXHIBIT 4-6 Step-Price Schedule for Electricity



utilities often add another step discount for quantities in excess of those for general use and heating. Exhibit 4-6 illustrates a step-price schedule for an electric utility.

*Two-part pricing* is another way to structure volume discounts and is used most commonly in situations where there is an incremental cost to take on a new customer but a lower cost to sell an existing customer additional volume. For example, a company that supplies fuel oil or LPG to homes and businesses must send a truck to each customer location to top-off the tank on a regular basis. Customers who require only a small amount at each visit would need to be charged a high price per gallon or cubic foot simply to cover the delivery cost, while those who require much larger quantities could be served profitably at a lower price per unit and would therefore have a lot of competition for their business. The typical solution is a two-part price, which in this case would be a price to make the delivery plus a price for the amount of product actually delivered.

Given the clear increase in profit from offering step discounts, effectively moving along an individual customer's demand curve, why do most companies still offer each individual customer volume at only one price? The answer is that segmenting different purchases by each customer is possible only under limited conditions. It is profitable only when the volume demanded by individual buyers is significantly price sensitive.

## PEAK PRICING AND YIELD MANAGEMENT

In industries where the product or service is not storable, a seller's current capacity imposes a limit on the amount of demand that can be satisfied at

any point in time, while any capacity that is not sold when available is lost forever. This is a common problem for airlines, hotels, taxi fleets, and amusement parks. It is also a common problem for services from government such as the capacity of roads and central city streets that become congested and impassable at peak times. The easiest solution to this problem involves simply raising price reactively, or *peak pricing*, whenever supply is inadequate to meet the quantity demanded. Uber, for example, adjusts its prices upward when demand exceeds supply, ensuring that at some price it is almost always possible to get an Uber car while rewarding drivers for joining the pool of cars when demand is greatest. Even some governments have come to recognize how peak pricing can both improve the quality of life for its citizens while earning revenues disproportionately from people who are willing to pay a premium at peak times. Cities from London to Singapore have begun to charge drivers a “congestion charge” for the right to drive on inner-city streets when traffic would otherwise exceed capacity, while highways throughout the U.S. have additional priority lanes where traffic is kept flowing by setting an access charge high enough to keep the number of cars using the lanes within the available capacity.

The most challenging pricing problems occur when a seller attempts to manage both the peak demand problem and pricing across different segments simultaneously. In the distant past, most sellers would attempt to manage one and simply accept management of the other as a lost opportunity. As the cost of computing power and data management declined over recent decades, companies with the most to gain began developing a process called *Yield Management* to optimally manage these two pricing problems simultaneously. A few firms in the airline industry and petroleum refining have led the way in developing sophisticated yield management techniques. The ability to do so proved to be a huge competitive advantage substantially increasing the return on capital invested relative to those firms that simply adjust price reactively.

There are three tasks required for effective yield management. The first is to use one of the pricing tactics described above to enable segmented pricing based upon value to the purchaser. Second, because one must generally set the price level by segment before potential customers reveal their demand, yield management requires a means to forecast changes in demand by segment over time. Initially, airlines used past variation over days of the week and over weeks of the year to forecast demand by segment in the future. Over time, the best yield management practitioners have added more variables to their forecasting models to anticipate demand even more accurately. Third, yield management involves estimating demand price elasticity by segment to determine which prices should be adjusted to optimize the balance between margin and capacity utilization.

With those three bits of information—a segmented price structure, demand forecasts and elasticities by segment—yield managers can optimize prices to maximize revenue and profit. The ultimate goal is to target price changes to induce the more price-sensitive customers to adapt their purchase behavior while maintaining pricing for the less price-sensitive segments, where inducing changes in demand would be more costly to the seller and painful for the buyer. To illustrate how they do this, consider the recent pricing on the route from Boston to Chicago. The fully refundable, changeable

fare, purchased almost exclusively by relatively price-insensitive business travelers, is \$302 for all flights during the work week. At that price, the airline makes a lot on each seat sold and so would like to ensure that seats are always available at that price point on every flight, even if purchased near the flight time. On the other hand, since the costs of a flight are mostly independent of the number of customers actually on the plane, the airline would also like to fill as many seats as possible, since an empty seat is a wasted revenue opportunity.

To achieve these conflicting goals in a way that maximizes the revenue, or yield, on each flight, the airline focuses its price management on the customers who are most price sensitive. On Monday morning, usually a time of peak demand, the price for a non-refundable, non-changeable ticket at the most popular flight times is \$232. A price that high is sufficient to discourage some discretionary travelers from traveling at that time, leaving seats available to sell more profitably and refundable tickets to business travelers. On Wednesdays, however, demand from business travelers is much less than on Mondays, so there are potentially many empty seats. The solution, however, is not to discount the refundable fare, since few if any additional business travelers would take a trip on Wednesday simply because fares were lower.

Instead, the airline holds the refundable fare at the same \$302 level, despite the lower demand for it, because that demand is not particularly price sensitive. To fill the additional seats that cannot be sold at full price, the yield manager will lower the price for a non-refundable, non-changeable ticket on Wednesday morning. But an airline cannot wait until it sees how many people will buy a refundable ticket before deciding whether and how much to discount non-refundable tickets, since the buyers of refundable tickets often wait to book until close to the time of the flight. Consequently, the airline must estimate how many seats it can sell in advance at a discount without foreclosing the ability to sell those seats at a higher price later. To do that, a yield manager must first forecast how many higher-priced, refundable tickets the airline will be able to sell closer to flight time.

Apparently, the yield manager in this case expected demand for Wednesday morning flights to fall substantially relative to Monday flights, leaving a lot of empty seats. Consequently, the airline reduced its lowest, non-refundable fare for Wednesday morning to only \$127. Since that is 37 percent below its price for the same time on Mondays, the airline apparently estimated from past experience that it could sell, and would have the capacity to serve, greater than 37 percent more seats on Wednesday morning than it could have sold by retaining the same price it offered on Monday.

Obviously, the better an airline's ability to forecast demand, and the better the ability to estimate the impact of price on seats demanded, the more successful the yield management will be in loading capacity with the most profitable passengers available for each date and flight time. The key to transforming simple peak pricing into sophisticated yield management in any industry is the forecasting of demand and adjustment of price based upon how current sales are tracking against forecasted sales. While software to do this was initially built in house, software companies have since developed sophisticated software packages to make and display these estimates automatically, drawing upon analysis of past demand patterns for similar days of the week and times of the year. Those yield management packages are now

widely used to set prices for hotel rooms, rental cars, and advertising space as well as for airline seats. Less sophisticated versions are sometimes used to price seats at concerts and other popular performance venues.

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## Summary

Designing an optimal price structure that effectively segments your market and maximizes your profitable sales opportunities is clearly among the most difficult, but potentially rewarding, aspects of pricing strategy. For companies that are launching an offering with differentiated benefits or employing a business model with a different cost structure, creating a new price structure that aligns with those differences is usually necessary to capture the profit potential associated with them. Even without such a change, a company that can incrementally improve the price

structure can gain profitable incremental volume. The principles of price structure discussed in this chapter, and the examples cited to illustrate them, can serve as a guide to a better basis for collecting revenues across segments. There is no simple formula. Each case requires creativity to find the best means to implement those principles within your market. It is, however, one of the most important activities that a marketer can do to improve profitability, since the investment required is small relative to other marketing investments, and the payoff is often very large.

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## Pricing Policy Influencing Customer Expectations and Purchase Behaviors

*There can never—and I mean never—be a discount on a new car coming out of the factory in pristine condition.*

Elon Musk<sup>1</sup>

As described in the previous chapter, Price Structure and Pricing Policy are closely related, both having the objective to align differences in price paid with differences in value received and cost to serve. Price structure involves establishing that alignment across macro segments of customers and applications. Although a price structure can sometimes be quite complex, involving multiple price points and even different price metrics associated with different applications, different levels of volume, and different customer locations, a particular customer would typically see only pricing associated with that customer's intended application, volume requirements, and location. In contrast, price policy defines the rules and conditions for price discounts or surcharges that could be applied to a transaction within a segment. Pricing policies involving things like an upcharge for rush orders or a discount for must-take orders to which the customer commits far in advance of shipment, can and usually should be transparent because their goal is to influence customer behavior.

In consumer markets, for example, a retailer will sometimes offer a short-term price promotion (e.g., buy one, get one free) on a popular brand to stimulate store traffic. The risk is that regular customers, who buy the product weekly because they think it is a good value at the regular price, will stock up during promotions, undermining both revenues and store visits in the future. A policy limiting the quantity that a consumer may purchase at the promotional price would help to prevent that costly change in customer behavior. Amazon has a Subscribe-and-Save policy to apply an increasing discount when customers order more unique items to be shipped together on a regular basis. But this discount policy wisely does not apply to ordering more units of the same item.

When purchasing large quantities for a business, savvy purchasing agents often split their purchases among multiple suppliers based upon price, giving say 60 percent to the one with the best price, 30 percent to the one with the second best, and 10 percent to the one with the third best price. They then regularly switch company rankings in order to induce sellers into bidding wars that ratchet down their prices. Again, a policy choice can mitigate the incentive for such behavior. One policy option is for the seller to require that the buyer take any extra discount as a rebate to be paid at year end if the buyer's total volume of purchases exceeds a target percentage of the buyer's *annual* volume. That eliminates the incentive for the buyer to maintain an ongoing competition among suppliers for the preferred position because, if the buyer awards its lead supplier position for only a few months and then switches after receiving a better offer from a competitor, the buyer will fall short of achieving the annual volume necessary to qualify for the expected rebate. Moreover, once the buyer is essentially locked in for a year in order to get the best price, there is a financial incentive to give the lead supplier an even larger share of the volume.

## PRICING POLICIES AND PRICE EXPECTATIONS

The examples above illustrate an important challenge to the principle of value-based pricing: A customer's willingness-to-pay an offered price is not determined solely by whether that price is fair or reasonable when compared to economic value. If customers come to expect that some change in their purchasing behavior will enable them to get the same product or service at an even better price, then the regular price becomes no longer acceptable. Sometimes that change in behavior can be a good thing for the seller (for example, when the customer agrees to commit to buy more or to accept a longer contract term in return for a better price). More often, the change in behavior is an unanticipated consequence of poor or non-existent policies that fail to account for the impact of the seller's behavior on the buyer's future price expectations.

Expectations drive buyer behavior and nowhere more so than when responding to prices. For example, a retail consumer may believe that a new fall fashion is well worth the price asked for it in September, but not buy it if she expects that the store, following its past behavior, will have a 20-percent-off sale within the next month. A policy of regular, predictable discounting has trained many retail consumers to wait for the sale price. As a result, sales at regular prices are less than they would otherwise be, increasing the amount of inventory that ultimately will be sold at the lower sale price.

The same dynamic plays out—only more so—when businesses sell products and services to other business (hereafter referred to as B-to-B sales and purchases). Professional buyers have learned to hold their purchases from some suppliers until the last couple of weeks of each quarter when sales managers are often willing to discount more deeply to achieve their quarterly sales goals. Once customers recognize this pattern, they will delay purchases until late in a quarter and buy forward to cover their expected needs in the following quarter. Sellers often misinterpret the declining sales at regular prices and the increasing portion of their sales at discounted prices as a sign that customers have become more price sensitive. In fact, they are only responding to incentives for how to get a better deal on what they would otherwise have been willing to buy at higher prices.



Periodic, predictable discounting is just one of many ways that sellers undermine their pricing power by making decisions for short-term sales gains that adversely affect buyers' expectations and future behavior. When sellers adopt a policy of making price exceptions when necessary to meet the lower price of a competitor, they create the expectation among buyers that creating a competitive process for their business will be rewarded. Consequently, buyers create purchasing policies that require multiple bids for each order or create a reverse auction for awarding an annual contract.

*A pricing policy is a rule or habit, consistently applied, that defines the criteria under which a company will change a price for an individual customer, for a limited period of time or for particular transactions.* To avoid creating customer expectations that a seller's prices can be manipulated by adopting purchasing policies that disconnect price from value, sellers facing repeat customers need to anticipate the expectations that their pricing policies create for customers. Fortunately, a company can change its customers' expectations by adopting pricing policies designed to influence those expectations positively. Some retailers have changed the expectations that it is better to wait for a sale by offering "30-day price protection," enabling deal-sensitive shoppers to buy now and receive a credit for the difference between the price paid and a sale price offered within the next 30 days. Some B-to-B companies have wisely adopted a policy that they will not participate in a buyers' reverse auction when, as often occurs, they would be allowed to see only competitive price offers but not differences in the quality, capabilities, and services that lower-priced bidders are willing and able to provide. In each of these cases, the goal of the pricing policy is to stop rewarding customer behaviors that erode unnecessarily the difference between the prices they pay and the value they receive.

## **THE EMERGENCE OF STRATEGIC SOURCING**



Unfortunately, some companies evaluate their pricing decisions, particularly when deciding whether to make a price exception, considering only the effect of sales in the current quarter or on the likelihood of winning the next deal. As a result, they inadvertently create expectations that change customer behavior adversely. B-to-B companies caught in a cycle of increasing frequency of price exceptions usually attempt to regain control by creating rules regarding who in the organization has the authority to approve discounts of what magnitude. For example, a B-to-B sales rep may be granted the discretion to discount a sale only by up to 5 percent, but his regional manager can approve discounts up to 15 percent, and the vice president of sales by up to 25 percent. Unfortunately, as customers learn these rules from their own experience and that of other customers with whom they talk, they learn not to accept any offer that the sales rep can make, instead responding with demands, arguments, and even misinformation designed to motivate the sales rep to make the case to his management for a larger discount. Furthermore, many companies mistakenly believe their discount approval process serves as a discount policy, when, in fact, the approval process is a personnel policy that is filling in for a missing price-and-discount policy.

In business-to-business markets where large companies make high-volume, repeat purchases, buyers have generally moved far ahead of most

sellers in adapting their behavior to achieve more favorable pricing. Under the rubric of “strategic sourcing,” they have developed sophisticated processes and policies to ensure they get the lowest prices possible while sellers, in contrast, often understand little about how their behaviors influence buyer’s expectations and reward more aggressive purchasing tactics. Exhibit 5-1 illustrates this contrast. Purchasing departments that practice strategic sourcing have goals and a long-term strategy for driving down acquisition costs, while their suppliers often lack comparable long-term strategies for raising or at least preserving margins.

Buyers at large organizations are usually full-time professionals who are separate from those who specify or use the product, while the seller’s counterpart is a rep whose main job is customer service. The purchasing professional is rewarded for cutting acquisition costs or establishing conditions that increase future leverage, while the typical sales professional is rewarded simply for making the next sale—and may be punished for losing it. The purchasing professional typically has access to a database of information about all the offers and counteroffers that the supplier has made to his company in the past, and often about the pricing and terms that other companies have received. Sales reps, in contrast, often have little knowledge of account history except for volumes purchased and are usually less well informed about the pricing of their competitors. Not surprisingly, sales

**EXHIBIT 5-1 Typical Capabilities of Purchasing Versus Sales**

	 Purchasing	 Sales
Strategy	<ul style="list-style-type: none"> <li>• Procurement is a strategic initiative to cut costs and achieve long-term competitive cost advantage</li> </ul>	<ul style="list-style-type: none"> <li>• Sales is a tactical process to achieve near-term sales goals without regard to longer-term consequences</li> </ul>
Processes and policies	<ul style="list-style-type: none"> <li>• Create processes and policies to "commoditize" competing offers and limit identification of unique differentiating values</li> </ul>	<ul style="list-style-type: none"> <li>• React to how customers define the RFP (request for proposal) process, without using incentives to change it</li> </ul>
People	<ul style="list-style-type: none"> <li>• Negotiation is the full-time responsibility of experienced negotiators, not the users</li> </ul>	<ul style="list-style-type: none"> <li>• Negotiation is often an infrequent and uncomfortable part of reps' customer service responsibility</li> </ul>
Information Management	<ul style="list-style-type: none"> <li>• Systems to collect market information and purchase history to leverage in negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Poor knowledge of competitor's prices</li> <li>• Often lack history of account negotiations, purchases, and use of valuable services received</li> </ul>
Measures	<ul style="list-style-type: none"> <li>• Procurement is measured on reducing overall costs, which is most easily demonstrated with lower prices</li> </ul>	<ul style="list-style-type: none"> <li>• Sales performance metrics measure and reward sales volume, not profitability</li> </ul>

reps often feel like the biblical David confronting a more powerful and better-armed Goliath.

## **POLICIES FOR PRICE NEGOTIATION**

Becoming better prepared to meet the challenge of price negotiation with strategic purchasers is not a responsibility that sales reps, or even the sales organization, can meet on their own. It requires developing a long-term strategy supported by pricing policies that are applied consistently. To develop good policies for price negotiation, it is necessary to treat every proposal or request for a price exception not as a one-off event but as an opportunity to create or change a policy that would be applied to all similar situations in the future. The more often a company finds it necessary to make price exceptions, the more likely that its policies are poorly defined or in need of revision.

If a firm has few clearly defined or consistently followed policies, a lot of potential deals will end up as requests for price exceptions. As new, well-thought-out policies are put in place, customers and sales reps will learn that ad hoc exceptions to policies will not be granted. The only requests for special pricing that should be considered are those involving situations not already covered by a policy. Putting a “no exceptions” stake in the ground is a key to making pricing decisions that are profit-enhancing. Most discount proposals, whether to reduce price to win business or to increase price to exploit tight supply, have an immediate reward that is obvious but a corresponding cost that is delayed, diffused over more accounts, and less transparent. In contrast, pricing by policy forces companies to consider the impact on the entire market when making a pricing decision and reflects the “shadow of the future,” whereby today’s discounting decisions affect pricing power in future transactions. It should involve asking whether it makes sense to establish a policy that the proposed pricing option could be offered to all customers like this one and still be profitable.

Making the decision by policy forces decision-makers to think through the broader and longer-term implications of the precedents they are setting. Creating policies cannot be the responsibility of sales management alone, since they do not have the perspective on the overall market or the authority to make the trade-offs that may be required. Pricing policies need to cover more than just discounting. They should include the company’s pattern for passing along changes in raw materials costs (such as requiring that all long-term contracts allow for adjustments versus adjusting only after a fixed-price contract expires) and its pattern for inducing product trials.

Pricing policies should also deal with how a company will respond to low-price offers made to its customers by a competitor. Any pattern creates expectations for how the company will deal with such issues in the future, and thus can change customers’ future buying behavior. Policies also influence how your sales reps sell and which ones succeed. Who is most rewarded at the company, the sales rep who sells at high margins by understanding customers well enough to communicate value, or the rep who drives big volume at a few accounts by understanding his company’s management well enough to make the case internally for price exceptions?

Ideally, policies are transparent, are consistent, and enable companies to address pricing challenges proactively. If your policies are transparent,

customers need not engage in threats and misinformation to learn the trade-offs you are willing to make. Airlines have transparent pricing rules that we may not like (low prices only when purchased well in advance, charges for making changes, no transfer of tickets to another passenger), but we accept them because we know what they are. Consistency communicates that it is impossible to “game the system” by contacting multiple points in the company to find the best deal while mitigating a buyer’s fear that a competitor who negotiates harder may be getting a better deal. Communicating policies proactively is much less contentious than telling a customer reactively that a proposal of theirs has, after some delay for review, been rejected.

Despite all that we have written so far about creating a value-based price structure and avoiding “price exceptions,” nearly all companies in B-to-B markets and some in B-to-C markets will need in some cases to negotiate prices because the product application or the customer is genuinely unique. For some products, such as a contractor building a unique building (e.g., a new research center), a consulting firm bidding to develop a plan to solve a unique customer problem (e.g., how to develop the market for self-driving cars) or a manufacturer selling the same product to a unique and very demanding customer (e.g., drugs to national health authorities in countries with single-payer health care systems, or lawn mowers and snow blowers to a category-leading retailer like Walmart), price negotiation is unavoidable.

Once the door is opened for price negotiation, there are myriad opportunities for savvy customers to manipulate the process to their benefit—potentially undermining pricing and profitability across the entire market. Following is a list of four common tactics used by professional purchasers to disconnect price from value, and effective pricing policies that firms have successfully adopted to defend against them:

**1. Commoditizing the Offers:** Particularly in B-to-B markets, customers often refuse to discuss what differentiates the offers of various competitors. Instead, they distribute “specs,” short for specifications, of exactly what they require. They then solicit bids to meet or exceed that specification. In some cases, the bids are “closed,” meaning that no one knows what anyone else is bidding until they are opened. In the worst cases, competitors are invited to submit their bids electronically. Over a few hours, the bids are “open” for everyone to see what others have bid, but not who the other bidders are. During that time, they can revise their bids based upon the prices that others have offered. This is called a reverse auction. Suppliers generally hate them, in part because they are unprepared to deal with them proactively.

*Policy Prescriptions:* If the buyer is committed to buying from the lowest bidder, this is not necessarily a bad situation. If you really want such business, which you may if it involves significant volume and does not compete directly with your main market, look at the specs carefully and think about how you could reduce your costs by cutting quality and service levels to meet but not exceed the specs. Does your manufacturing process yield a certain amount of “rejects” that do not meet the standards for most customers but would for this one? Do you have inventory that is about to expire yet still meets spec? Could this customer’s service needs be met in a cheaper way? Calculate the lowest price that would make this business worthwhile without all those costs, and do not go below that price in your bidding.

Be prepared, however, for the customer to object to your adherence to their own specs after granting you the business, especially if you have previously been a supplier to the customer and have already established expectations about how you normally do business. At that point, it is essential that you have a menu of very profitably priced product and service “upgrades” that the customer can buy as needed. For example, the customer may not have specified order lead times in the spec so you set minimum lead times for this customer equal to those that would have been required by other bidders serving the customer from some distant, low-cost location. A customer who then wants to take advantage of your ability to deliver orders with shorter lead times must pay a “rush order” charge that reflects the value of your differentiated ability to offer that service.

If the customer is not committing to buy from the lowest bidder when running a bidding process, then specs that devalue differentiating quality and service are simply a sham designed to bring low-cost bidders into the process. Do not take the bait. Make a policy either to refuse to participate in sham reverse auctions or to bid your list prices. Now the customer must choose either to pay list prices or abandon the bid process and engage in a more honest Give-Get negotiation.

Whether you win the business upfront but then make money by eliminating unnecessary costs or selling the upgrades, or you force the customer into a negotiation that involves acknowledging the differences that are important to them, you need to prepare in advance. You will need to create an unbundled price structure (Chapter 4) that affixes a monetary cost to the levels of quality and service that differentiate you.

**2. Double discounting of price increases:** Some companies’ pricing strategies have suffered for years from the effects of poorly negotiated price increases. The seller in these cases establishes an across-the-board price increase—say 6 percent—that is presented to buyers. Buyers without power are forced to take it or leave it. Larger buyers, however, often make the case that since they deserve a volume discount, they should not have to bear the full increase. If they typically enjoy a 25 percent discount off list prices, they argue that they should get only a 4.5 percent price increase—25 percent off the 6 percent increase in list prices.

Only a little thoughtful analysis reveals that this is a bogus argument leading to a costly mistake that compounds as years go by. The large buyer who gets a 6 percent increase is already getting a discount on the increase relative to smaller buyers. For example, if the large buyer is currently paying \$75 for what other buyers pay \$100, a 6 percent increase for the large buyer is only \$4.50 versus \$6 for everyone else. By demanding a discount on the increase, a purchasing agent is demanding that the seller pay twice for the same volume.

When buyers use this tactic repeatedly and the seller falls for it, their discounts quickly compound. One client saw its prices for volume buyers drop to less than 50 percent of list price in only seven years. To compensate for this loss, the company began asking for higher increases to create room for erosion with large buyers. As a result, it lost progressively more of its medium and small customers, making it ever more reliant on and vulnerable to intimidation from its largest buyers.

*Policy Prescription:* When increasing prices, there must be no exceptions. If more powerful buyers must have a concession, give it without undermining

the integrity of the price increase. For example, rather than discounting the price increase by 25 percent, give the powerful buyer a three-month delay before it will take effect. This is also a very useful tactic for buyers who have been paying unjustifiably lower prices that must be corrected. Begin by telling them what their new price needs to be to make them worth serving. You must be prepared to justify that price as fair, given what others pay, and you cannot back down without undermining the principle of pricing by policy. However, if the buyer signs a new contract to buy for some period in the future, say one year, you could agree to implement the increase in stages: 25 percent of the increase immediately and 25 percent at the beginning of each of the next three quarters. Ultimately, in the last quarter of the contract, the customer is paying the higher price aligned with what other customers pay, but the purchasing department can show “savings” in the current contract relative to market prices.

**3. Discounting for volume.** Sometimes buyers will offer a seller incremental volume in return for a price concession. There is nothing in principle wrong with accepting or, even better, proactively proposing such a deal. In practice, however, sellers often get taken. Here’s how. A buyer who offers to purchase 10 percent more volume in return for “only” a 2 percent price discount is actually getting a 22 percent price cut on the incremental volume! If the buyer is currently spending \$10,000 per year and offers to purchase 10 percent more volume, he would be buying \$1,000 of additional product at the pre-discounted price. If the buyer receives a 2 percent discount on that \$11,000 worth of product, he pays \$220 less, which is 22 percent off the \$1,000 of what would otherwise be incremental revenue.

Is the incremental volume really profitable at such a low price? If sellers actually calculated that incremental discount, many would never be willing to make such a large concession. Actually, the long-term cost of the concession is even higher because the lower price concession becomes incorporated into the starting point for all future negotiations.

*Policy prescription:* If you’re going to give a discount for volume, focus the discount on the incremental volume and give it as a rebate. For example, instead of offering a 2 percent discount on all of the volume, including what you have already won, offer a 10 percent rebate on the year-to-year increase in volume. This focuses the customer on the real value of the concession, it creates a much stronger incentive for the customer to reject a competitor’s offer to try their product, and it costs less! Making the discount into an end-of-year rebate instead of an upfront discount has the added advantage of protecting you from duplicitous buyers who promise more business to get the discount, but never order the promised incremental volume. With the discount focused entirely on the increment, they don’t get the savings until they have bought the required volume, and the lower price doesn’t get incorporated into the buyers’ expected price level.

**4. Discounting to compensate for past failure.** There is no situation in which sellers are more vulnerable than when their firm has failed to meet its commitments. Failure to deliver on time or to deliver the promised quality clearly undermines the case that your firm deserves either a higher price or a higher share of a customer’s business. Sophisticated purchasers will exploit that vulnerability by demanding an exceptional price concession to compensate for your prior failure.

There are two things that make this a powerful weapon for the purchaser. First, the seller does owe the customer something for having failed to meet its obligations. Second, by making that “something” a price concession, the seller exploits a common psychological bias that makes forgoing revenue less psychologically painful than making an equal-sized expenditure, even though each would affect bottom-line profit equally. The problem with the price concession is that it gets built into the price from which future negotiations begin—making it potentially an indefinite purgatory.

*Policy Prescription:* Make it a policy to negotiate with the customer a fair compensation for the cost of any legitimate failure, but pay that compensation as a lump-sum payment, rather than letting it reduce your established price point. If that is not financially possible, then make the compensation a “credit” that the customer can take for a portion of each future invoice until the agreed-to compensation is exhausted. This preserves the integrity of the price and automatically terminates the “discount” after the agreed amount is reached. For a customer who is upset about a past failure, you might even build a penalty (e.g., a 5 percent invoice credit for every week of delay in delivery beyond the promised date) into the contract. While these options may feel more painful than a simple price concession because they make the cost explicit, they are actually less costly because they expire automatically and maintain the principle that your price is justified by the quality or service that a customer can usually expect you to deliver.

Analyzing pricing challenges and developing policies to deal with them is an ongoing process, and one that is generally the responsibility of a pricing staff overseen by a group of managers with collective responsibility to preserve or improve profitability. Over time, a company’s policies can become a source of competitive advantage—creating expectations that drive better behavior on the part of customers, competitors, and sales reps and empowering sales reps to offer creative solutions more quickly and with less wasted effort selling their ideas internally. Still, building that set of policies takes time, and policy-based pricing will lose organizational support if few of the initial applications produce positive results. To avoid that problem, the remainder of this chapter will identify the common challenges that call for policy-based solutions and describe successful policies that we have seen for dealing with each of them.

## **POLICIES FOR RESPONDING TO PRICE OBJECTIONS**

The most common, and therefore, most important domain for policy development falls into the arena of responding to price objections from customers with whom pricing involves a process of negotiation. The lack of policies for dealing with price objections is not only a challenge for companies that sell directly. Consumer goods manufacturers face just as much price pressure from powerful retailers as they do from consumers who switch to alternatives because of price.

### **The Problem with Reactive, Ad Hoc Price Negotiation**

To illustrate the problem created in price negotiation by non-existent or poorly enforced pricing policies, think about how the process commonly plays out

badly for the seller. Imagine that to cover the increased costs of raw materials, your company announces a 5 percent price increase. When sales reps attempt to get their next orders at those higher prices, purchasing agents confront them with the assertion that the increase is unacceptable. How each sales rep responds to that resistance is critical to the success of this and any future price increases. Unfortunately, most companies lack consistent policies for how to respond, so that the mistakes of even a few can leave the company worse off than if it never even attempted the increase. The reason is that the response will create an expectation among the company's customers about how to get a better price.

Let's look first at what happens when a company has poorly defined or unenforced pricing policies for discounting, leaving sales reps with no authority or guidance on how to react to a customer's insistence on a lower price. Imagine that when confronted by the purchasing agent, a sales rep looks flustered and says only that he cannot change any pricing without the approval of his manager. This simple statement will make all future negotiations much more difficult. The sales rep has communicated to the purchasing agent that: (i) his company makes price concessions to some customers; (ii) to get a concession requires resisting any offer until a sales manager is involved; and (iii) that the customer is speaking to the wrong person. In short, by communicating that it makes exceptions, the company and the sales rep have lost their price integrity: The belief that the initially quoted price is actually a fair market price that other customers pay for the same thing. Exhibit 5-2 illustrates this downward cycle of reactive, ad hoc discounting.

Given that lack of integrity, the purchasing agent realizes that either she must figure out how to exploit it or she will be paying higher prices than competitors pay. A purchasing agent's worst nightmare is that someone discovers that a competitor is buying the same product from the same supplier for less than she was able to negotiate. On the other hand, ad hoc discounting creates

**EXHIBIT 5-2** Cycle of Reactive Price Negotiation





the possibility that adroit negotiation might enable the buyer to achieve an even better price than competitors. The greater the perceived potential to win a better discount, the greater the return to an investment in strategy of aggressive price negotiation.

Buyers exploit a lack of price integrity by adopting negotiation tactics that undermine value-based pricing. These usually involve purchasing policies that shift the negotiation from one where the seller manages the buyer's expectations to one where the buyer manages the seller's expectations. The expectation that the purchasing agent wants to create is that the buying company views the seller's product or service as essentially a commodity for which there are easy, cheaper substitutes. Creating this expectation involves minimizing direct contact between sales reps and users who could acknowledge the value of differences. It also involves creating at least the impression of a highly competitive market for the customer's business.

We have seen many cases where a seller lost market share at a large customer because it became more flexible in negotiating price exceptions. Once customers learn that their price is dependent upon creating substitutes, they have a motivation to solicit bids from cheap competitors, even if they have no intention of ever doing business with them. In other cases, they will "diversify" their purchases among two or three qualified suppliers and then create an ongoing competition among them by giving more share to whichever supplier offers the lowest price. Of course, they give their preferred supplier a "last look" chance to match lower bids to retain a larger share. But every time the preferred supplier matches, it reinforces the idea that it is better to maintain multiple competitive suppliers despite a preference for one, and undermines the idea that whatever differentiation makes the preferred supplier preferred has economic value.

Seeing this erosion of market share and customers' willingness-to-pay for differentiation causes sellers to believe that their products and services have become more commoditized. Because they fear additional sales loss, they discount more, often cutting expenditures for the differentiation that customers appear not to appreciate. When a company with poor policies that have undermined its price integrity is the market leader, the damage is compounded. Competitors never know the real price against which they are competing, since there is no consistency. Their information about what the market leader is offering on any particular deal comes from the purchasing agent who has an incentive to underrepresent competitors' prices and forgets to mention any restrictive terms to qualify for them. As a result, competitors will on average imagine that the leader is pricing lower than it is, and so they will price lower than necessary to win sales.

### **The Benefits of Proactive, Policy-Based Price Negotiation**

Now consider the impact on expectations when aggressive negotiation is met with strong pricing policies that maintain price integrity. Your company has announced a 5 percent price increase to cover rising raw materials costs. When confronted by the purchasing agent, the sales rep knows that his company will back him in holding firm on the increase, even at the cost of a sale. He confidently explains to the purchasing agent why all suppliers will face the same cost increases and so cannot maintain their same quality and service levels

without passing it along. The goal is to make clear that the buyer will not be put at a competitive disadvantage by accepting the increase.

Many purchasing agents will still refuse to accept the increase at that point unless the firm's price integrity has already been proven in the past. Some may only be bluffing or may be prudently planning to check what other suppliers are doing before deciding to accept the increase. Others, however, may be operating under a mandate to keep total costs from increasing. Although your price increase is creating a problem for these buyers, it is the seed of an opportunity to change their behavior by changing their expectations. That begins a virtuous cycle of Proactive, Policy-based Price Negotiation illustrated by Exhibit 5-3.

The sales rep who works for a company with pricing policies can be armed with more than just the confidence that he can lose the sale. He can also be empowered with pre-approved value trade-offs and discount policies that in a policy-free company would require review by someone higher up. The sales rep can build credibility with the customer by offering the customer win-win, or at least win-not-lose, trade-offs. For example, if the purchasing department could get the multiple users in the company to place one consolidated order each month rather than many smaller orders, the sales rep explains, his company can cut the buyer's shipping costs. If the purchaser would buy a wider variety of products from the seller under a multi-year contract, it would be possible to reach the volume threshold for an end-of-year rebate. If the purchaser would allow the seller's technical people to talk with the users, they might be able to suggest some process improvements to cut waste by more than enough to offset the price increase.

To take advantage of these trade-offs, the purchasing agent would need to change purchasing behavior to focus more on understanding what creates value in his firm and to optimize the trade-off between what the firm buys and

**EXHIBIT 5-3** Cycle of Proactive Policy-Based Price Negotiation



the sellers cost to provide it. To make the trade-offs, the purchasing agent would need to bring actual users into the decision process to evaluate them. If the policies are well designed, she will learn either that savings can come from working with this supplier rather than by threatening him, or that she already has a deal that represents the best overall value for her company. Once she develops the expectation that the best way to minimize cost is to work with her sales rep and that there is no reward to be had from deceiving him, she will become more open with information that enables the seller to identify other trade-offs that could be mutually beneficial. As buyers come to trust the process, there is no need for the seller to maintain multiple suppliers simply to gain leverage in price negotiations. This does not mean that the process will be free of conflict, anger, or occasional threats. But it will force the interactions to focus on value.

Regaining the ability to capture value when negotiating prices requires more than training the sales force on “SPIN selling”<sup>2</sup> or any other sales program. Value-based sales tactics need to be backed by a pricing process that is consistent with those same principles. Unless a company is selling a unique product to each customer, pricing should not be driven by a series of requests for one-off price approvals from the sales force, since the sales force then becomes little more than a conduit for strategies designed by the customers. Changes in price should be driven by consistent policies designed to achieve the seller’s market-level objectives. When the policies are aligned with those objectives and clearly articulated for the sales force, the sales reps (as well as distributors and channel partners) are empowered and motivated to sell on value rather than on price.

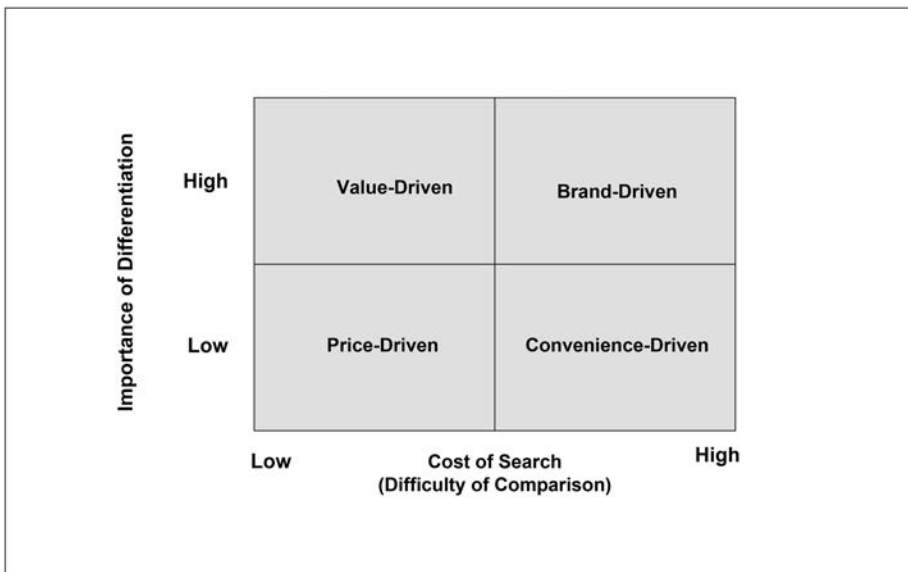
### **Policies for Different Buyer Types**

Given the growing power of some buyers, and the increasing transparency of pricing to all buyers, any profitable and sustainable solution for dealing with price objections must be codified in policies. But what policies? The answer to this question depends upon the type or types of buyers from whom you are encountering the objection. Exhibit 5-4 illustrates four general types of buyers, who differ in the importance to them of differentiation among suppliers within the product class (for example, how important is durability or immediate availability when buying office furniture), and the cost of search among suppliers relative to the potential savings. You need policies that enable your company to respond appropriately to price objections driven by the different motivations of these different types of buyers.

*Value-driven buyers* purchase a disproportionate share of sales volume in most business-to-business markets. They have sophisticated purchasing departments that consolidate and buy large volumes, and they can afford the cost to search and evaluate many alternatives before making a purchase. They are trying to manage both the benefits in the purchase to get all the features and services that are important to them, as well as to push down the price as low as possible. The policies that the sales rep needs to deal with value buyers are ones that empower him or her to make trade-offs, while at the same time offering a defense against pressure on price alone.

The key to creating value-based policies is to understand every way in which your product or service might add more value to the customer than the product or service of a competitor, and every way that a change in a customer’s behavior could add or reduce the value to you. Then create a set of

## EXHIBIT 5-4 Buyer Types



pre-approved trade-offs. For example, if a source of your value is higher-quality service that competitors do not offer, you need to find a way that the service can be unbundled even if that is not the way you prefer to deliver your product. It may not even save you any money to unbundle it. But it gives the sales rep a low-cost alternative to walking away or simply giving in on the price without any cost to the buyer for the concession. With that lower cost option, the rep can call the bluff of purchasing agents at companies that do in fact value your differentiation. If too many buyers are actually taking the low-service, lower-price option, it is time for management to reconsider whether the service differentiation is really worth what they think it is.

The other option is to think of things the customer can do for you that would justify a discount. For example, could you create an end-of-year rebate based upon the customer buying more broadly from your product line, increasing volume by at least 20 percent (but reward for only the incremental volume, as described earlier in this chapter!), establishing a regular steady order that will not be changed less than seven days before the shipping date? Each of these illustrates a principle that we call give-get negotiation. The policy for dealing with value-driven buyers is that no price concession should ever be made that does not involve getting something from the other side. The price concession need not be fully covered by any cost savings to the seller, but it should eliminate any differentiation that the buyer claims not to value. This principle, which if the sales reps are empowered with pre-approved trade-offs can be established at the moment when the purchaser raises the price objection, educates the buyer that there is always a cost to price concessions. That cost puts a limit on the buyer's willingness to pursue price concessions indefinitely. Once purchasers understand these new rules of the game, it also creates an incentive for them to think of new trade-offs that they might propose (for example, partnering on developing a new product) that would warrant consideration by the seller's management as a new policy.

The fear that too many companies have is that if they adopt give-get tactics rather than simply conceding to price objections with an ad hoc deal, they will lose too many value-driven customers, or that customers will automatically choose the cheapest, most basic offering. The problem with this thinking is that if you never test it, you never know whether the objections are driven by a lack of value or simply by the expectation that objections are rewarded with price concessions. Moreover, because value buyers know their market, they sometimes do not even give you the benefit of a price objection. You just lose their business because your product or service levels are beyond what they need.

By proposing trade-offs, you can learn what value buyers value. By listening to how they respond to proposed trade-offs, you can gauge whether the problem is that you are offering too much or that you are uncompetitive for the same things. If your proposed trade-offs are rejected and you lose business, then your prices may not be competitive. In that case, it is better to lower your price proactively by policy than to wait for each customer to object. Price integrity is worth more in the long run than the extra revenue you can earn for a while from the customers who are slowest to recognize that you no longer offer a good value.

*Brand-driven buyers* are those for whom differentiation, particularly of the type that is difficult to determine prior to purchase, is valuable but the cost to evaluate all suppliers to determine the best possible deal is just too high. Perhaps the buyer is new to the market and just lacks the experience to make a good judgment. The buyer will buy a brand that is well known for delivering a good product with good service without considering cheaper but riskier alternatives. Other times, the buyer may have had positive past experience with a current supplier and the cost to evaluate another supplier versus any potential savings is too high; consequently, the buyer becomes “loyal” to the seller.

A price objection from a brand-driven buyer, or a customer satisfaction survey showing a decline in such buyers’ beliefs that the company offers fair value for money versus competitors, is something to take very seriously. It can signal one of two things: That the brand buyer has been disappointed by the supplier relative to expectations; or that he has learned something about market prices that leads him to expect that the price he is paying for security is excessive. A price concession is never a good response in the first case and may not be in the latter.

If the issue is disappointment, it is important to understand the nature of it and make recompense, rather than giving a price concession going forward; such a concession signals to this customer that it is reasonable to expect such disappointment in the future, and the adjusted price reflects that less-than-adequate result. A client of ours in the printing industry failed to print and ship the client’s catalog when promised which, since the catalog was for seasonal merchandise, represented a serious breach of trust. The customer opened the catalog bid to other printers for the next year and the sales rep, having been berated by the customer, felt certain that the only way to keep the account was to slash the price. After understanding the high value that this customer placed on the quality and technical relationship that they had built up over many years with the printer’s technical personnel, we proposed a different approach.

The president of the printer went to see his counterpart of this mid-size catalog company to express personally that what happened reflected an

unacceptable misunderstanding of how important the promised mail date was to their business. He explained how, because the client was not one of the largest in the printing plant, their job had been given lower priority when problems arose. The president explained that they now realized what a poor policy that was for sequencing jobs. The president indicated that if given another chance, his company would put together a proposal by which the client could purchase the right to be, during the weeks of time-sensitive print runs, the top-priority job in the plant. The deal would involve a sizable financial guarantee from the printer that its job would ship exactly as promised. By way of apology and to prove its commitment, the printer would give the client a large credit that would offset all of the cost of this service in the first year of a new three-year contract.

A few days later, the sales rep and the vice president of sales arrived with the proposal, including the option to “own” their desired time on the presses for what amounted to a 24 percent premium over the already high rate this customer had been paying. The proposal also gave the customer the promised credit to compensate for the prior year’s failure. After some further negotiation that slightly increased the size of the credit, the customer accepted the deal and expressed appreciation that the printer was finally giving their relationship the respect that they felt it deserved. Allowing this customer to negotiate a larger credit was acceptable because it was based upon the value lost by the past failure while still preserving the policy that the price the customer would pay reflected the value going forward.

Of course, if this buyer’s objection were driven not by any disappointment in the service but by a belief that it was already being exploited on the price, the solution would have needed to be very different. One way to avoid that problem is to understand the value you are delivering and have a policy to never let the price premium for the relationship buyer exceed that value. As important is the need to ensure that the buyer recognizes the added value that you are delivering. The key to doing that is to track all the value-added services that the customer gets and associate a quantifiable value to them. For example, a company can itemize differentiating features and services with prices for each on its invoice; it can also tabulate the number of no-charge customer support calls fielded each month or any other services delivered. Then, at the bottom, show a credit for the sum of those charges reflecting the fact that they are covered in the all-inclusive price.

*Price-driven buyers* are the polar opposite of brand buyers. They genuinely are not looking for a feature or service that exceeds some level that they specify in advance. The clearest symptom of a price buyer is the “sealed bid” or “reverse auction” purchasing process. The buyer commits in writing to the specification of an acceptable offer and is distinctly unwilling to invest time in hearing about the value of an offer that exceeds those specs. He wants a proposal that simply communicates your capability to achieve the specs and your price. If managed appropriately, price buyers can be useful as a place to unload excess inventory, to fill excess capacity, or generate incremental profitability, but only if the risks are recognized and managed.

The most effective policy for dealing with price buyers is the following: Strip out every cost that is not required to meet the minimum specification; design the low-cost offer in a way that makes it unattractive to your existing customer base; and be prepared with a credible justification when existing customers inquire why someone else is receiving a lower price. Many branded

pharmaceuticals companies have traditionally ignored developing markets such as India and Southeast Asia because of low prices, but rapid growth in those markets has caused big pharma to take a new look at how they could generate incremental revenue from patented drugs.<sup>3</sup> They have done so by licensing reputable local suppliers to make local versions, without the use of the brand name or distinctive shape and often combined with local ingredients that have not received approval as part of the formula in higher-priced Western countries. The companies earn incremental revenue from these price-buyer markets with minimal investment while effectively fencing off their more lucrative markets.

Sometimes value-driven buyers, and even brand-driven buyers, will masquerade as price-driven buyers in an attempt to extract reactive concessions from their preferred supplier. They hold a reverse auction, for example, that is widely open and they share the prices among the bidders with the sole goal being to get lower pricing from their existing supplier. There are a number of tip-offs to look for to determine whether this is a sham. One is that the buying company still spends a lot of time evaluating the differences among suppliers before the bid. Second is that its RFP is vague about the details of product and service specifications. Third is a lack of commitment to buy from the lowest-price bidder who meets the specs. If any of these happen, then there is reason to believe that the buyer is not really ready to make the final decision solely on price.

There are two common policies that expose value and relationship buyers disguised as price-driven buyers. One is to adopt and publicize a policy never to respond with a bid unless minimum acceptable product and service specifications are fully defined, enabling you to infer which lower-quality bidders will be excluded and to understand exactly what the buyer is willing to give up. The other approach, recommended only when the volume at stake is very large, is to submit a bid that you can deliver profitably within the ill-defined spec but is explicit in stating the lower quality or service levels that reflect the “gives” you expect from the buyer in return for a lower price. If the customer wants what they have had from you in the past—such as the ability to place rush orders, to order shipments that are less than one truckload, and to demand longer payment terms—you will enforce firm policies that will trigger additional charges for those services. Either of these policies by a supplier with an existing relationship will usually result in a return to more traditional give-get negotiations.

A common error that we see in dealing with genuine price buyers is the attempt to make them into value buyers by offering them a “promotional” price. The argument is that by giving a proven price buyer more quality or service than they have paid for, particularly when the users could really benefit from it, these customers will see what they have been missing and be willing to pay more in the future. In practice, exactly the opposite occurs. If price buyers learn that they can get priority service or superior quality when they really need it without paying for it, they have no incentive to ever change their policy of price buying. A better strategy is to let the price buyer know that you can deliver a much higher level of quality and service. When the price buyer needs a rush order or technical support because the low-priced bidder shipped defective product or failed to ship at all, a strategic pricer should have a policy to fill the order, but only at the highest list or spot price, perhaps including charges for a rush order, services, or anything else out of the ordinary. When

the buyer has seen the cost of not dealing with a higher-quality supplier, the seller may offer the customer a contract retroactively that would cover those services going forward at prices equal to what other buyers pay. If the price buyer declines the offer, at least you will have earned a good profit as an emergency supplier.

*Convenience-driven buyers* don't compare prices; they just buy from the easiest source of supply. Convenience buyers are value, loyal, or price buyers in categories where they spend more or buy more frequently, but will pay a price that is much more than the economic value defined in the market for a relatively small or infrequent purchase. They expect to pay a premium for convenience, so price objections from them are rare.

### **Policies for Dealing with Power Buyers**

A subset of value buyers is what we call *power buyers*, who control so much volume that they have the power to deliver or deny huge amounts of market share. They expect to get better prices than any other buyer because of that power. As one supplier reported being told by a purchasing agent at a large retailer, "We expect your price to us to cover your costs. Earn your profits from somebody else." The worst of these were the large auto firms, which bankrupted many of their suppliers before bankrupting – or nearly bankrupting – themselves. Other power buyers—such as Walmart or Home Depot—have used their power to force suppliers to become more efficient and, in the process, those power buyers have grown both by capturing more market share in their original markets and expanding into new product lines. Power buyers have also arisen in the market for hospital supplies as integrated hospital networks and as "buying groups" of independent hospitals. Buying groups are not really buyers, but associations of buyers that increase their power to negotiate deals collectively by refusing to buy from suppliers that have not signed a contract with the group. Dealing with power buyers reactively is risky; a seller is almost certain to suffer a decline in profitability as a result.

So how can a seller deal with power buyers proactively? First, stay realistic. The effect of power buyers is to reduce the value of brands. Many companies that were seduced by the large volumes offered by power buyers have consequently experienced significant margin declines. Their mistake was to think of power buyer volume as purely incremental, leading them to cut ad hoc deals without thinking about the effect on the overall market. If a brand has enough value to consumers that they will go to a store that has it rather than accept whatever is offered at a big-box store or from a buying group, then the brand has value beyond the retailer's margin on that product. The brand can draw store traffic. Retailers competing with the big-box stores will pay more than the power buyers precisely because the brand can draw a buyer to them. For example, Benjamin Moore paints have high value to local hardware stores and home centers, not just because they have high customer loyalty, but also because they are not available at Home Depot or Lowe's.

Still, in many markets, power buyers control so much volume that one cannot grow without them. For brands without broad customer recognition and preference, the broad distribution and access to volume that power buyers offer may be the key to profitable growth. Even companies such as Procter & Gamble with strong brands have found dealing with power buyers profitable,



but not on their terms. Here is how others have made the choice to deal with power buyers and still preserve their profitability.

**Make power buyers compete.** Many companies with strong brand preference miss a big opportunity by framing the strategic issue poorly. They ask themselves whether they should continue with their traditional retail channel, targeting customers who are less price sensitive, or sell to retail power buyers at lower margins to win high volumes. But a third way to win the business of a power buyer, without making a price concession, is to offer one of them a way to drive store traffic. This generally involves giving the power buyer something that they can sell exclusively. For example, the retailer Target has been willing to do deals at the margins expected by famous designers of jewelry, women's accessories, and home goods in return for exclusive designs that attract customers who might not otherwise be willing to drive to a "big-box" retailer.

**Quantify the value to the power buyer.** There are many ways that a brand can bring differential value to a big-box retailer. Even if the retailer already has someone as a customer, the brand can drive store visit frequency. Disposable diapers are very valuable to Walmart because their bulk requires frequent visits from a high-spending demographic group, new parents. Diapers are placed strategically in the back of the store so that each visit takes the new parents past other items that they might be tempted to buy. A large manufacturer capable of serving all of a big-box retailer's volume across multiple locations also has the advantage of reducing the retailer's vendor management costs.

**Eliminate unnecessary costs.** The most difficult challenge to manage is trying to serve both high-volume power buyers who are unwilling to pay for your pull marketing efforts, and non-power buyers who value your brand because you support its marketing. One option is to specialize in serving only power buyers, enabling the company to eliminate costs of marketing and distribution. Shaw Industries, the largest carpet supplier in North America, has a core competence in eliminating unnecessary costs from carpet manufacture. To leverage its economies of scale, it sells massive volume through big-box retailers and large retail carpet buying groups.

**Segment the product offering.** There is no need to offer exactly the same product through a power buyer and through traditional channels where there is a conflict. In the case of some packaged goods, only large sizes are available through other big-box retailers. Toro, the maker of high-quality lawn mowers traditionally sold through local lawn and garden centers declined for many years to pursue the business of big-box stores. Ultimately, however, the company came up with a strategy that has worked to serve both types of retailers. Toro sells a high quality, but entry-level, mower in high volumes to Home Depot. For repairs and maintenance, buyers are referred to the traditional lawn centers where the specialized retailer not only earns margins from after-sale serving, but also has the opportunity to up-sell consumers to the more expensive machines. Selling different packages and models through different channels cannot entirely prevent cannibalization, but a thoughtful strategy can often reduce it to acceptable levels.<sup>4</sup>

**Resist "divide and conquer" tactics.** Power buyers get their power from their ability to deny a brand or product line any volume through their

stores or buying group. The key to their success is to structure the discussion as being about the pricing of each of the manufacturer's products individually. As a result, they maximize the competition for each product line and minimize any negotiating benefit that the supplier gets from offering a full line. Thus a large hospital buying group will tell a medical products manufacturer with nine product lines that there will be nine separate buying decisions, occurring at different times, for each product line. The implication for the seller is that, in the absence of the best price for each, it could end up with a few orphaned products that are excluded from the buying group's distribution channel.

If you have a product line with some strong brands, you do not need to react passively to purchasing policies that undermine your advantages; proactively set policies of your own. When a large medical products company was confronted with these divide and conquer tactics, it simply returned multiple bid forms for each product with different prices, adding a line to the top margin of each specifying the conditions under which those prices would apply. The lowest applied only if all the manufacturer's products were approved by the buying group, while the highest would apply if only a subset were approved. The hospital buying group hated this tactic, but the seller maintained its policy, explaining how the value of the channel to it was vastly reduced without complete acceptance of its product line. Recognizing the cost of losing all the seller's products, some of which had large market share among members, the buying group approved all the products.

Perhaps the most important thing to remember in dealing with power buyers is to be emotionally prepared for them to be bullies who have seen intimidation tactics succeed. If you are confident of the value you offer and you are willing to unbundle differentiation that you know the customer values, be prepared for the fact that someone high up in purchasing may become furious. He may demand to speak to your CEO and threaten unspecified consequences of a damaged relationship with his company. If and when that happens, remember that power buyers who do not need you rarely get mad; they can easily get others to supply them. The power buyers who get mad are those that need something from you as a supplier and are frustrated that they are not going to get the lop-sided deal that they expected.

## **POLICIES FOR SUCCESSFULLY MANAGING PRICE INCREASES**

One of the most difficult discussions to have with a customer involves telling them that you will increase their prices. One of our clients in the New York metro area actually had a customer in the habit of throwing things—particularly shoes—at sales reps who proposed pricing that he did not like. Other customers would quietly ignore the increase when placing an order but, when paying bills, adjust them to reflect the old prices and return the invoice with a check marked “paid in full.” As a result of being cowed by such antics, this company typically realized on average less than half the amount of the increases, with customers who already paid the lowest prices being the ones who avoided paying more. There are two very different occasions that call for increases, and well-designed policies can help to make all of them more successful.

## **Policies for Leading an Industry-Wide Increase**

The most important increase to achieve quickly is the one that results from a large, sustained increase in variable cost of production or a shortage of industry capacity. These should be the easiest price increases since all suppliers are facing the same problem. There is no real alternative for the customers, regardless of how difficult the increase may prove for them. Problems arise, however, from poorly designed policies that fail to manage expectations. Good policies can influence expectations in ways that help such increases get a better reception.

Even when customers realize that a price increase is ultimately inevitable, none wants to be the first to take it. They do not want to be the first to tell their customers that their prices are increasing, or the first to tell their investors that their margins have declined because of rising prices. That means that they need to trust that their competitors are all taking the same hit. The only way to get the first large customers to go along is to make them confident that doing so will not put them at a competitive disadvantage. Your policy must be that you will not back off the increase for anyone without doing so for everyone who is a customer in the same industry.

There are a few things you can do to create the expectation that taking the increase will not put them at a competitive disadvantage. First, before you announce the increase, let it be known publicly why the increase is necessary for the industry as a whole based upon costs that the industry is incurring or demands on capacity. Listen carefully for similar sentiments that all of your major competitors recognize the same need before proceeding. Second, announce the size and effective date of the increase, stating exactly which product lines are increasing by how much. Explain the cause and effect relationship (for example, energy accounts directly or indirectly for X percent of costs and that translates into Y percent price increases). The public announcement reinforces that this is an across-the-board increase and insulates your sales reps from any personal responsibility for it.

Third, if customers are fearful that their competitors will not have to take the increase or will not take it as quickly, empower them to give your most important customers a transition guarantee. If you are the supplier to their competitors, you guarantee that if you agree to a lesser or delayed increase with any of their major competitors for the same product and service, they will get the same concession retroactively. If they are concerned that a competitor who is served by one of your competitors will not get the increase, you might agree that you will delay their increase until the effective date of a competitor's increase. All of these will help create the impression that the cost increase problem is one that you are willing to solve together in a way that recognizes their legitimate business needs as well as yours. Because it is easier for any individual customer to accept the increase given these conditions, it is more likely that all will ultimately accept it.

Under no circumstances should you back off on the full increase for customers who are more resistant while leaving loyal customers to take it, a common practice. Although such a policy can generate greater return in the immediate quarter, it reinforces that resistance pays and outrages loyal customers whenever they learn that they have been taken advantage of. On the other hand, if a major competitor fails to initiate a comparable price increase, a general rollback may be necessary. If so, contact your customers proactively

to let them know that you are protecting them by *temporarily* suspending the increase out of concern for their competitiveness. The increase will automatically be reinstated when it can be accomplished without putting them at any disadvantage. This builds trust with your customers, keeps the price increase agreement with them in play, while letting your competitor realize that there is nothing to gain from delay.

Finally, there are situations where you can safely make concessions for good customers, but only ones that involve the timing, not the fact, of an inevitable increase. For example, you can build loyalty by being sympathetic that they may have fixed price commitments with some of their customers. For volumes necessary to fulfill those contracts, you can legitimately agree to share the pain until those commitments have been fulfilled. Thus, a customer receives a concession for some volume in the near term by agreeing to the increase going forward.

### **Policies for Transitioning from Flexible to Policy-Based Pricing**

In markets where volume comes mostly from repeat purchasers, it is difficult to transition from poor policies to good ones all at once. Customers have already developed expectations that they can get rewards from certain behaviors. They will continue those behaviors for a while until their expectations change. The change takes time within the seller's own company, too; marketing and sales management needs that time to develop good policies, and the plans to carry them out. We have seen the move to policy-based pricing fail when management implements a rigid fixed-price policy of no more discounting before developing policy-based discount options and a plan for the transition.

To minimize the risk of transition and create time to test new policies for managing discounts consistently, one needs to begin with policies for managing the transition. Chapter 11, on price management, describes a technique called *price banding* that enables managers to estimate how much of the price variation is illegitimate, both on an aggregate and a per account basis. The first policies should focus on managing the outliers: "Outlaws" who now enjoy prices much lower than other customers for the same products, service levels, and commitments, and the "at-risks" who are paying more than can be justified relative to the average.

The first step is to identify the outlaws and how they got that way. The reason to start here is because they are the least-profitable accounts, so there is less at risk if they take their business elsewhere. These outlaw accounts pull down other customers over time—either as a result of information leaking into the market about their pricing or because their competitive advantage in purchasing enables them to take share from others who buy at a higher price. If an outlaw is in a unique industry or different market from other customers and the low price reflects low value and low cost to serve, then an amendment is called for in your price structure that articulates objective criteria to qualify for the price and defines fences necessary to keep it from undermining your general price level. When there is no logical rationale for the low prices these accounts pay, an effective fence means to make an outlaw and others like him legitimate. That requires figuring out how the outlaw got such pricing in the

first place and creating a policy to correct that mistake. If the original reason for such low pricing no longer exists (for example, a service mistake in the past led management to allow a discount to compensate, or the price reflected expectations of volume that never materialized), the customer needs to be confronted with that reality. Most importantly, the customer needs to be contacted by someone above the sales rep (the level dependent upon the size of the customer) to communicate that, while the customer has had a much better deal than others in the past, top management is unwilling to continue pricing that is unfair to other customers and unhealthy for the supplier.

With the bad news delivered unequivocally by management, the sales rep is now free to initiate a give-get negotiation in an attempt to save the account. He can contact the customer to learn whether there might be some trade-offs they would consider, to mitigate the size of the mandated increase. Various concessions on the part of the customer consistent with those made by other customers could reduce some costs. With the ability to use a second or third source as a bargaining chip now unnecessary, the buyer might even be willing to sign up for an exclusive supply contract to qualify for a discount that would reduce the impending increase.

Finally, the firm may create a policy authorizing a period of transition to a legitimate pricing level in steps. An outlaw buyer who agreed to either an exclusive contract or minimum “must take” volumes under a long-term contract (say 18 months), would then be allowed to take the necessary price increases in steps: One-third of the increase becoming effective immediately, one-third in six months, and the last third in 12 months. What makes this effective is that the purchasing agent will be able to argue that he precluded an average increase over the contract that would have been twice as large as originally proposed and pushed realization of most of it to the back end. What is important to the seller is that by the end of the contract, the buyer will be purchasing at a price comparable to what other customers pay.

Of course, some of these outlaws will be genuine price buyers who may not accept any increase. Walking away from such customers, and publicly acknowledging it as a good business decision, signals your resolve externally and internally. It will communicate a new-found commitment to doing business only with good business partners, and put others who may be masquerading as price buyers on notice that there is a potential cost. Unless your industry has excess capacity, it might also strain your competitor’s capacity with low-margin business. If that makes it more difficult to serve some of their higher-margin customers well, if only during a transition period, it gives you the chance to win some more profitable volume.

## **POLICIES FOR PRICING IN AN ECONOMIC DOWNTURN**

Pricing policies are most likely to be abandoned when the market enters a recession and sales turn down. Revenue then seems much more important than preserving profitability in the future. But unmanaged price-cutting in a recession not only undermines price levels that you will want to sustain in the later recovery, it can trigger a price war that makes all competitors worse off while still in the downturn. Fortunately, if a company thoughtfully manages pricing by policy though the downturn, it can minimize the damage in both the short and long run.

First, you must enforce a firm policy not to use price to take market share from close competitors during the downturn, since they can easily respond with price cuts of their own. (But you can and should retaliate selectively against price-based moves by close competitors, as explained in Chapter 7 on managing price competition.) At one point during a recent recession, a large supermarket chain initiated a price war that increased its share of revenue but tanked its share of profits. Smarter competitors, such as Winn-Dixie, promoted their lower-priced brands to help thrifty shoppers cut costs, and weathered the recession with much less damage to their profitability.<sup>5</sup>

In business markets, the value that some products can justify is tied to the health of their customer's markets. For example, the value of a page of advertising in a magazine or space at a trade show is related to the size of the market for the product being advertised. In 2009, the return from advertising real estate was not what it was in earlier years. In such markets, particularly when variable costs are low, sellers sometimes "index" their pricing for customers willing to make long-term commitments, with the index tied to conditions in their customer's market. Such a policy supports customers and maintains volume during difficult times, while establishing an automatic mechanism for price increases when customers can better afford them. An alternative is to unbundle elements of your product or service that the customer can no longer afford (such as, new product development and technical support), even though they value them. The point in all these cases is that these price-discounting options can be designed to expire when they are no longer needed and do not directly threaten competitors.

But what can a company do to gain volume during a downturn when demand from its current customers is shrinking but taking share will only trigger a price war that will shrink the market further? As discussed in Chapter 4 on price structure, there are various ways to attract a new, more price-sensitive segment, without cutting price to most of your existing customers. Moreover, when you have excess capacity, the cost to serve a new segment is minimal. Although you want to maintain policies that protect margins in the market where you are investing for long-term growth, you have nothing to lose from price competition, even of the ad hoc variety, in markets from which you hope to gain incremental business in only the short term. For those markets only, a policy of one-off pricing to fill excess capacity can be worth pursuing if the business can be carefully fenced.

For example, one high-end chain of hotels in Europe, which would never consider serving tour groups in good times, approached tour companies catering to small groups of high-income travelers with some very good deals. They brought in both incremental revenue and introduced their chain to a market segment of people they would want to have as nightly guests, while still enabling themselves to exit the tour segment in better times. Our commercial printer client approached direct mail advertisers accustomed to accepting poor quality from printers who use inferior presses. For mail circulars and newspaper inserts only, they offered better quality that nearly matched what advertisers were paying already. The low-end competitors could not match the offer, and the company won some incremental contribution that kept its press operators employed during some lean months.

## POLICIES FOR PROMOTIONAL PRICING

A discount to induce product trial is a legitimate means to gain sales, but if poorly managed it can have the effect of depressing margins, as regular customers learn how to qualify for them as well. For search goods, a promotional discount is the incentive for the customer to investigate the supplier's offer. For experience goods, it is the incentive to take the risk of what could turn out to be a disappointing purchase.

The size of the promotional discount necessary to induce trial can be mitigated by policy. A liberal returns policy if the customer is unsatisfied is one way to take away the risk of trying a product at full price. Bowflex does not discount its unique, high-end exercise equipment. But it combines direct-to-customer value communication with a money-back guarantee within the first six weeks of delivery. When product performance can be measured objectively, a performance-based rebate policy can accomplish the same thing. Rebating is becoming a common means for pharmaceutical and medical device companies to win acceptance of higher-priced products with as yet unproven differentiating benefits. When Velcade, a cancer treatment, was deemed not cost-effective and rejected for payment by the British National Health Service (NHS), the company did not reduce its price. Instead, it came back with a new offer to guarantee effectiveness without lowering its premium price. The company would refund the entire cost of the drug for any patient who did not show adequate improvement after an initial period of treatment. The guarantee won approval for payment within the NHS and created the potential for the company to earn higher profits if justified by superior performance.<sup>6</sup> By putting money on the line, the seller raises expectations that the product probably will produce the superior treatment outcomes that the company claims, increasing trial of the product even at a higher price.

For consumer products, promotional pricing is one of the most important issues for which a company needs pricing policies and a process for reviewing their effectiveness. Even companies that have established brands with large market shares face the problem that a high percentage of buyers will leave the market or, particularly in the case of food products, will become "fatigued" and look for something different. Consequently, manufacturers must constantly win new customers to maintain a fixed market share. Promotional discounts are often a very cost-effective way to educate consumers, particularly for frequently purchased consumer products, which are usually experience goods.

The easiest way to induce trial with little additional cost of administration is simply to offer the product at a low price for a time, say one week each quarter. For frequently purchased products sold through retailers, the sales increases resulting from such "pulsed" promotions are usually huge—easily justifying the deal if looked at in isolation. But there are various reasons why a company might want to ban such promotions as a policy. First, there is some evidence that when a product is bought at a promotional price, it depresses willingness-to-pay for the product in the future. Second, both consumers and retailers will stock up on the product when promoted, giving the appearance of a big increase in volume that simply depresses sales in later periods. There are categories, usually among food products, for which stocking up is a good thing. The more inventory people have of sodas and snack foods, for example,

the more they consume. For most products, however, stocking up at promotional prices simply reduces the average price that customers pay while educating them to wait for the discount.

Consequently, a policy of limiting the availability of promotional discounts and targeting them to prospective buyers is often advisable. One way to do this is with coupons. Coupons have the advantage of limiting the ability of already loyal customers to stock up. With new scanner technology, retailers offer manufacturers the ability to print coupons on cash register receipts for customers who have bought competing products, or a combination of items that indicate that they might be good prospects for something that the manufacturer wants them to try. Rebates can be offered on the item but be limited to one per family.

Many service companies are in need of more disciplined policies for pricing to induce trial. Cable TV companies offer large discounts to sign up new subscribers for a year, as do newspapers and magazines, and mobile telephone services. The problem in many of these cases is that, at the end of the discount period, they have to go back to the customer and ask for a much higher price to continue the service. A high percentage of those customers balk, knowing that either they can win an incentive from another supplier to try that supplier's product for a while, or can wait a week or two and sign up for another incentive from the same supplier who just tried to raise their price. None of this should be surprising given what we have learned from the study of behavioral economics.<sup>7</sup> Once someone spends six or 12 months enjoying a service at one price, renewing it at a higher price is viewed as a "loss" to be resisted. No services company should ever use a discount on the service price as its means to induce trial. Instead, it should create an inducement that maintains the integrity of the price and builds the habit of paying it. For example, a far better inducement to purchase is a "free" gift for signing up—such as the choice from a list of new best sellers for signing up for a magazine, or \$100 in pay-per-view credits for signing up for a year of cable TV. After the initial commitment, the incentive is gone but the customer is paying the monthly cost that reflects the value. As a result, there is no perception of "loss" that drives away subscribers at the back end.

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## Summary

Good policies cannot magically make pricing of your product or service profitable, but poor ones can certainly undermine your ability to capture prices justified by the value of what you offer. Good policies lead customers to think about the

purchase of your product as a price–value trade-off rather than as a game to win at your expense. As such, they are an essential part of any pricing strategy designed to capture value and maintain ongoing customer relationships.

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## Notes

1. Reuters, "Tesla's Elon Musk directs staff to give no more discounts on new cars," September 30, 2016. Accessed April 21, 2017 at <http://tech.economictimes.indiatimes.com/news/technology/teslas-elon-musk-directs-staff-to-give-no-more-discounts-on-new-cars/54596279>
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4. Dan Mitchell, "Manufacturers Try to Thrive on the Walmart Workout," *New York Times*, February 20, 2005.
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## Price Level

### Setting Prices that Capture a Share of the Value Created

*Pricing is the moment of truth—all of marketing comes to focus in the pricing decision.*

E. Raymond Corey, Harvard Business School<sup>1</sup>

To this point, we have explained and illustrated how to create the conditions necessary to sustain price points that reflect the value that one's products and services create for customers. Now we need a process to select value-based prices at which the firm can expect to sell its products and services most profitably. Economic theory prescribes a process for setting an "optimal" price level against a known demand curve assuming "all other things being equal." However, in reality, all other things can never be ignored.

Take the example of a pharmaceutical company that purchased an old prescription drug and hiked the price many-fold. The price change may have been considered economically rational—after all, the drug had few substitutes and consequently demand was very inelastic. Yet what the company failed to consider was the power of community-held norms of fairness in the decision and the resulting backlash against it, and the entire pharmaceutical industry in general, by an outraged public. The public pressure for legislators to do something eventually led to a congressional hearing on price gouging that may have occurred at the company.

When it comes to setting prices, the reality is that in most companies the task is a complicated process in which conflicting, function-specific objectives come into play. Financial managers may allocate costs to determine how *high* prices need to be in order to repay past investments and achieve margin objectives. Marketing and salespeople may analyze buyers and competitive offerings to determine how *low* prices should be in order to achieve their sales objectives. The pricing decisions that result are often politically charged compromises, and not a thoughtful, market-relevant implementation of a commercial strategy. An effective pricing decision should involve

a blending of, not a compromise between, internal financial constraints and external market conditions.

Unfortunately, few managers have any idea how to facilitate a price-setting dialogue across the various functions. From traditional cost accounting, many learn to take sales goals as “given” before allocating costs, thus precluding the ability to incorporate market forces into the pricing decisions. From marketing they are told that effective pricing should be entirely “customer driven,” ignoring costs except as a minimum constraint below which the sale would become unprofitable. Perhaps along the way, these managers study economics and learn that, in theory, optimal pricing is a blending of cost and demand considerations. In practice, however, they find the economist’s assumption of a known demand curve hopelessly unrealistic. Consequently, price setting at most companies remains trapped between cost- and customer-driven procedures that are inherently incompatible.

Another price-setting trap that companies fall into is to assume that if their differentiation is “x” percent better than a competitor’s, then they can price at no more than an “x” percent premium. Yet if you had cancer and knew of a drug that was 50 percent more effective than the competition’s in curing cancer, would you refuse to pay more than a 50 percent premium? Suppose you are planning to paint your house and discover a tool that will enable you to finish the job in half the usual time—a 100 percent increase in technical efficiency. Unless you enjoy the drudgery of painting or place little value on your time, you would no doubt happily pay more than twice the price of a brush to buy this tool. Conversely, improving the accuracy of a common quartz wristwatch by 50 percent is unlikely to command a 50 percent premium—after all, quartz wristwatches are already accurate to within less than one second per day and the improved accuracy would be hardly noticeable to most people.<sup>2</sup> As these examples illustrate, the price premium associated with the economic value of a product is often much greater (or much less) than the percentage improvement in performance.

The purpose of this chapter is to suggest how managers can break tactical pricing deadlocks and avoid the error of leaving money on the table by infusing strategic balance into pricing decisions. We describe a simple, logically intuitive procedure for setting prices that integrates the relevant customer, competitor, and cost data in a way that enables marketers to set more profitable price levels. The process is designed to be efficient and adaptable to most products, services, and market contexts. It integrates data on value estimation and segmentation, drivers of price sensitivity, costs, strategic objectives, and market response analysis in a way that can be supported by the organization and understood by customers.

## THE PRICE-SETTING PROCESS

Price setting is the ultimate intersection of value creation and value extraction, where the seller seeks simultaneously to capture a fair share of the value created, maximize long-term profitability, and enhance his or her market position. Because different customers have different motivations for purchase, there is rarely one “optimal” price that is right for every customer. One needs to look no further than the passengers on an airplane who individually hold tickets at many different prices for essentially the same basic service. However,

every sold ticket shares two common characteristics: No one paid more than the value of getting to their destination, and no one paid less than the marginal cost incurred by the airline of transporting an incremental customer on the flight. The trick, of course, is to set the right prices in a consistent, repeatable manner.

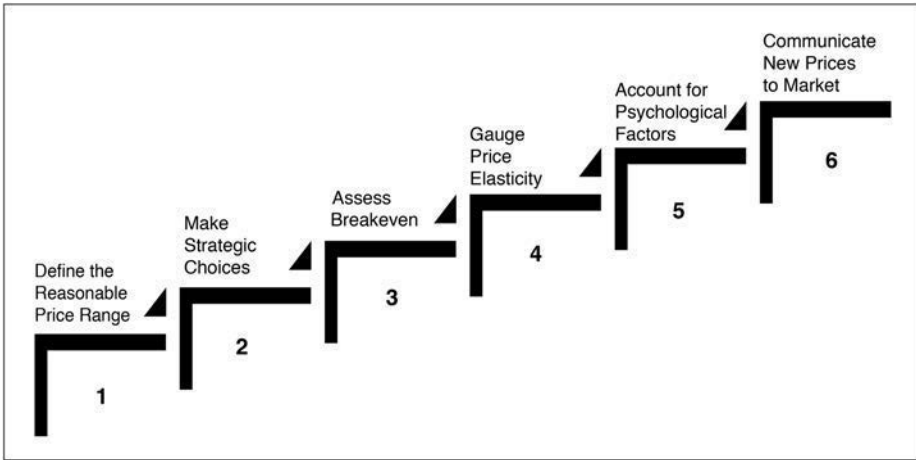
In most cases, the process of setting prices is iterative, starting with a broad definition of feasible price points and then applying a series of “filters” to narrow down to the most market-relevant feasible price point for each market segment. Exhibit 6-1 illustrates the process that we typically use. It begins by defining a viable price range for each customer or application segment established earlier when creating a price structure (as described in Chapter 4).

**Step 1: Define the Viable Price Range**

Defining the viable price range starts with defining the highest and lowest price points that a business might sustainably charge for the product or service. The feasible price ceiling is defined by the product’s value proposition, as summarized by the Economic Value Estimation (EVE®) model described in Chapter 2. The total economic value represents the maximum theoretical price that a fully informed customer in a particular market segment would ever be willing to pay. When trying to win a new customer, it is the absolute upper limit of price that could possibly be achieved. For an incumbent supplier, it is the price that would have to be met to insure that an informed customer would not see a competitor’s price as a better deal. For purposes of illustration, we will describe the model from the perspective of a company trying to win new customers.

The feasible price floor for a product that is positively differentiated is the price of the next-best competitive alternative. Theoretically, the price floor is the variable cost of the product—after all, any price above the variable cost will allow the seller to earn a positive contribution margin on a sale. However, if the price is set below the price of the next best competitive alternative, we

**EXHIBIT 6-1 The Six-Step Process for Setting Prices**

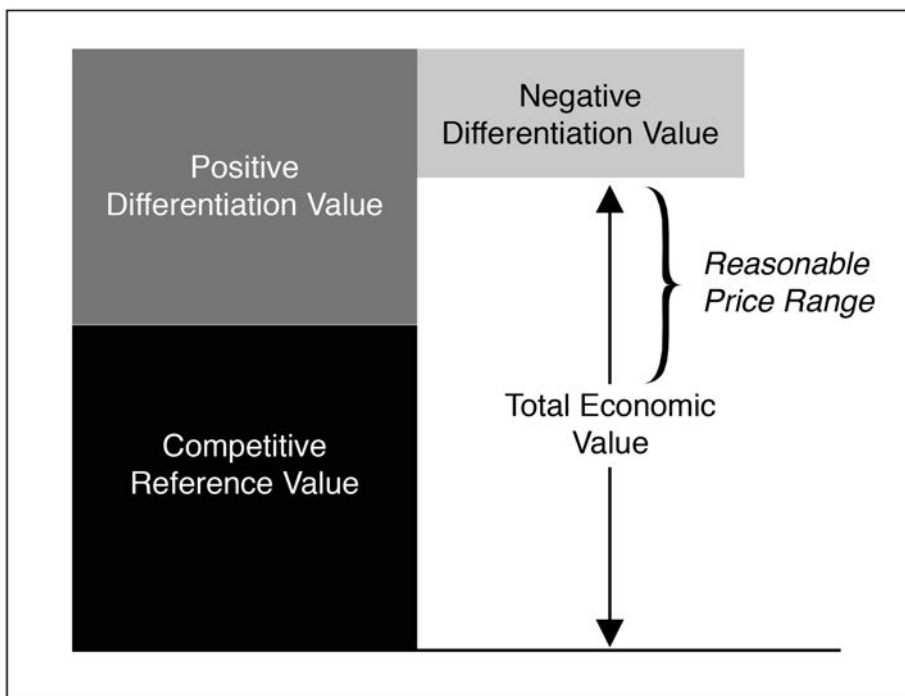


place the competitor in an untenable position in which its product creates a negative economic benefit for its customers—a situation that they can only address through a price drop. Therefore, to mitigate the risk of a price war, the value-based price floor, for practical purposes, is defined as the price of the next-best competing offer.

For a product that is negatively differentiated, the price ceiling will also be defined by the economic value, which in this case is *below* the price of the next-best competing alternative. For negatively differentiated products, the price floor is defined by the product's variable cost. An example of a negatively differentiated product would be a mobile phone carrier that only offers local coverage and is not able to offer roaming services like the market leaders. In this case, the local carrier will set their price below the market leaders that reflects its lower value proposition, yet still high enough to cover its variable costs. These offers may still represent a good value for a segment of customers who rarely leaves the coverage area.

Taken together, the price ceiling and the price floor represent the “reasonable price range” in which a price can be set, as illustrated in Exhibit 6-2. Ultimately, setting the price will define how any differentiating value gets shared between the seller and the buyer. If buyers were able to keep all the added value, paying no more than the competitive price for a superior product or service, they could be easily won over—but probably not profitably. If sellers were to set prices that fully reflect the value of their positive differentiation, there would be no financial incentive for the customer to purchase that brand over a more generic alternative. In reality, prices for new products are usually

EXHIBIT 6-2 Illustration of the Reasonable Price Range



set below the level of value delivered. The difference between the actual price and the maximum value can be viewed as “the incentive to purchase.” Done correctly, a price premium over a competitor can often be framed as a “discount relative to the value delivered,” a framing that can fundamentally shift the dynamics of value communication and price negotiation. The challenge is to figure out what balance between creating a financial incentive and earning a higher margin per sale is in the best interest of the seller.

The decision on how value should be shared between buyer and seller is not driven by altruism but rather by judgment about what is most likely to yield long-term, sustainable profits. Leaving more of the economic value on the table may, other things being equal, induce customers to migrate to a new product or service more quickly. But “other things” are rarely equal. Although a higher price is by itself a deterrent, a higher price per sale can simultaneously justify greater expenditures to win the sale. Does the customer understand the value of the differentiation offered? If not, educating the customer may win more sales at a higher price than offering the product at a lower price to someone ignorant of the true value. Or perhaps the customer understands the value story but also sees risk that may turn out not to be true. In that case, a money-back guarantee may be much more effective than a lower price. Price is all too often used as an inducement to overcome resistance that can be dealt with more cost-effectively, and therefore more profitably, in other ways.

If the product in question is already on the market and has an established price, we suggest using the current price as the starting point for analysis so long as it sits within the “reasonable price range.” For a new product, one might do some formal or informal research with a few potential customers about the product concept and its differentiating benefits to determine what they would expect to pay for such added benefits. As a last resort, one can choose a 50:50 sharing of the differentiating value as a starting point for the analysis. In the following sections of this chapter, we will describe additional considerations that will guide a further narrowing and refinement of the price range.

## **Step 2: Make Strategic Choices**

Step 1 defined an externally “Reasonable Price Range” consistent with economic value and the importance that customers place on it when making purchase decisions. It did not indicate where in that range a company might reasonably expect to operate most profitably. Should prices reflect the high value to a relatively exclusive set of buyers, even at the expense of restricted market share? Fazioli (pianos), Porsche (automobiles), and Festool (power tools) have been very successful pursuing that strategy. But other companies have been highly successful making lower prices a reason to buy from them. Ryanair (air travel), Old Style (beer), Samsung (electronics), and the so-called “dollar stores” (retailing) have all pursued that strategy successfully. Still others seek to get the highest price they can justify but only to the point where it does not exclude their product from consideration by most of the potential market.

It is essential that price levels be set in a way that supports and advances the broader marketing objectives of the firm. When a leading software maker dropped prices on its operating system by nearly 50 percent in 2009, the

move was consistent with the company's long-held goal of maintaining and growing market share. The critical question for the software company's managers was whether the price cuts would result in higher profits over the long term. It is easy to envision scenarios in which a competitor's response limits any volume gains from the price cuts, thereby reducing profitability. If the software maker's primary business objective was to increase current profitability, it might have been better served by maintaining a premium pricing strategy, even at the expense of some lost volume.

To be useful, pricing objectives must be set relative to some reference point. Given the strategic importance of customer value to the overall pricing strategy, we define pricing objectives in terms of the share of differentiating value that the firm attempts to capture in its price. This decision should be driven by judgments about what will yield long-term, sustainable profitability. As noted earlier, a low price will, other things being equal, induce customers to migrate to a new product or service more quickly. On the other hand, if the product's differentiation is likely to be sustained by patents or copyrights, a low price established to drive sales means foregoing considerable margin over the long run. Pricing low initially in the hope that one can raise prices later is difficult given the effect of the initial prices on buyers' future perceptions of price fairness.

There are three alternative strategic choices that one might adopt for a pricing strategy: *Skimming the market*, *penetrating the market*, or *neutral market pricing*.<sup>3</sup> But the choice is not arbitrary. Given a firm's relative capabilities and market position, usually only one positioning will represent the most profitable option and often only one positioning will be sustainable.

Let us examine the conditions under which each strategic choice might be most appropriate.

**OPTION 1: SKIM THE MARKET** *Skim pricing* (or *skimming*) is designed to capture superior margins, even at the expense of large sales volume. By definition, skim prices are high in relation to what most buyers in a segment can be convinced to pay. Consequently, this strategy optimizes immediate profitability only when the profit from selling to relatively price-insensitive customers exceeds that from selling to a larger market at a lower price. In some instances, products might reap more profit in the long run by setting initial prices high and reducing them over time—the “sequential skimming” strategy we discuss below—even if those high initial prices reduce immediate profitability.

Buyers are often price insensitive because they belong to a market segment that places exceptionally high value on a product's differentiating attributes. For example, in many sports a segment of enthusiasts will often pay astronomical prices for the bike, club, or racquet that they think will give them an edge. You can buy a plain aluminum canoe paddle for \$35. You can buy a Bending Branches Double Bent paddle (wood laminate, 44 ounces) for \$149. Or you can buy the Werner Camano paddle (graphite, 26 ounces) for \$249. The Werner Camano not only makes canoeing long distances easier but also signals that one belongs to a select group that has a very serious commitment to the sport.

Of course, simply targeting a segment of customers who are relatively price insensitive does not mean that they are fools who will buy at any price. It means that they can and will pay a price that reflects a large portion of the

exceptionally high value they place on the differentiating benefits they expect from the purchase. Thus skim pricing generally requires a substantial commitment to communicate why the differentiating features of the product or service can be expected to yield benefits that justify a high price to at least some customers. If effective value communications are neither practical nor cost-effective, then the firm must limit its pricing to reflect what it can communicate or to what potential customers are likely to believe simply from what they can observe.

The competitive environment must also be right for skimming. A firm must have some source of competitive protection to preclude competitors from providing lower-priced alternatives with comparable benefits. Patents or copyrights are one source of protection against competitive threats. Pharmaceutical companies cite their huge expenditures on research to justify the skim prices they command until a drug's patent expires. Even then, they enjoy some premium because of the name recognition. Other forms of protection can include a brand's reputation for quality and prestige, access to a scarce resource, and preemption of the best distribution channels.

A skim price isn't necessarily a poor strategy even when a firm lacks the ability to prevent competition in the future. If a company introduces a new product at a high price relative to manufacturing cost, competitors may be attracted by the high margin even if the product is priced low relative to its economic value. Pricing low in the face of competition makes sense only when it serves to deter competitors or to establish a competitive advantage. If a low price cannot do either, the best rule for pricing is to charge the most that you can while you are able. If and when competitors enter by duplicating the product's differentiating features and, thus, undermine its competitive advantage, the firm can then reevaluate its strategy.

*Sequential skimming* can be a more appropriate strategy for products and services with low repurchase rates. The market for long-lived durable goods that a customer purchases infrequently such as the latest smartphone model, or products that most buyers would purchase only once, such as a ticket to a stage play, can be skimmed for only a limited time at each price because the buyers willing to pay the highest prices leave the market after making a purchase. Skimming, in such cases, cannot be maintained indefinitely, but its dynamic variant, sequential skimming, may remain profitable for some time.

Sequential skimming, like the more sustainable variety of skimming, begins with a price that attracts the least price-sensitive buyers first. After the firm has "skimmed the cream" of buyers, however, that market is gone. Consequently, to maintain its sales, the firm must reduce its price enough to sell to the next-most-lucrative segment. The firm continues this process until it has exhausted all segments with profitable volume potential. In theory, a firm could sequentially skim the market for a durable good or a one-time purchase by lowering its price in hundreds of small steps, thus charging every segment the maximum it would pay for the product. In practice, however, potential buyers catch on rather quickly and begin delaying their purchases, anticipating further price reductions. To minimize this problem, the firm can cut price less frequently, thus forcing potential buyers to bear a significant cost of waiting. It can also launch less attractive models as it cuts the price. Tesla seems to be using this strategy as it builds the market for electric cars. The first Tesla, the Roadster, was introduced in 2008 at a base price of \$109,000 in the United



States. The second Tesla model, the Model S, was introduced in 2012 at a price of \$71,500, and was followed by the more recently announced Tesla Model 3 that was slated to start deliveries at the end of 2017 at a base price of \$35,000. This variant to sequential skimming has been described as “pushing down the stack” and is used frequently in technology markets such as semiconductors and cellular phones.

**OPTION 2: PENETRATE THE MARKET** *Penetration pricing* involves setting a price low enough to attract and hold a large base of customers. Penetration prices are not necessarily cheap, but they are low relative to perceived value in the target segment. Hyundai, for example, used a sustained penetration pricing strategy to enter the U.S. market in which the company offered high value in the form of reliability, ten-year warranties, and well-appointed interiors at prices far below those of Japanese makers of similar quality cars. Similarly, T.J. Maxx and Marshalls stores have positioned themselves as offering products of the same or better value as their competitors at lower prices.

Penetration pricing will work only if a large share of the market is willing to change brands or suppliers in response to a lower price. A common misconception is that every market will respond to lower prices, which is one reason why unsuccessful penetration pricing schemes are so common. In some cases, penetration pricing can actually undermine a brand’s long-term appeal. When Lacoste allowed its “alligator” shirts to be discounted by lower-priced mass merchants, high-image retailers refused to carry the product any longer and traditional Lacoste customers migrated to more exclusive brands. Lacoste has since restored its prestige brand status by revamping its look, signing endorsements with leading tennis stars, managing its pricing more tightly, and using outlet stores for discounted products so that the brand image is not diluted in its premium retailers.

Warehouse clubs such as Sam’s, Costco, and B.J.’s Wholesale Club have designed retail formats that use penetration pricing to attract only buyers willing to purchase in large quantities. Charter vacation operators sell heavily discounted travel to people who do not mind inflexible scheduling. T.J. Maxx and Marshalls target those price-sensitive customers willing to shop frequently through limited and rapidly changing stocks to find a bargain. Xiameter, a division of Dow Corning, has been able to win a large share of price-sensitive buyers with previously unachievable prices for silicones by eliminating costly services and delivering only in the most cost-effective shipping quantities.

To determine how much volume one must gain to justify penetration pricing, a manager must also consider costs. Conditions are more favorable for penetration pricing when incremental costs (variable and incremental fixed) represent a small share of the price, so that each additional sale makes a large contribution to profit. Because the contribution per sale is already high, a lower price does not represent a large cut in the contribution from each sale. For example, even if a company had to cut its prices 10 percent to attract a large segment of buyers, penetration pricing could still be profitable if the product had a high contribution margin. In order for the strategy to be profitable in a case where the original contribution margin is 90 percent, the sales gain would need only exceed 12.5 percent. The lower the contribution per sale, the larger the volume gain required before a penetration price is profitable.

Penetration pricing can succeed even without a high contribution margin if the strategy itself creates sufficient variable cost economies to be self-funding, enabling the seller to offer penetration prices without suffering lower margins. The willingness of price-sensitive shoppers to change brands enables the so-called “dollar stores” and similar discounters to vary the products and brands they offer depending on who gives them the best deal, thus increasing their leverage with suppliers. The penetration prices of Save-A-Lot grocers (a division of Supervalu Inc.) enables them to maintain such high turnover, high sales per square foot, and high sales per employee that they can offer rock-bottom prices and still earn higher profits than traditional grocers do.<sup>4</sup> To cite a manufacturing example, as personal computer users became more knowledgeable buyers willing to buy without first visually inspecting the product, manufacturers such as Dell used penetration pricing to sell high-quality products to knowledgeable buyers online while still earning exceptional profits per sale from the savings associated with direct sales and distribution.

Of course, for penetration pricing to succeed, competitors must allow a company to set a lower price that is attractive to a large segment of the market without their matching it. Competitors always have the option of undercutting a penetration strategy by cutting their own prices, preventing the penetration pricer from successfully offering a better value. Only when competitors lack the ability or incentive to do so is penetration pricing a practical strategy for gaining and holding market share. There are three common situations in which this is likely to occur:

1. When the firm has a significant cost advantage and/or a resource advantage so that its competitors believe they would lose if they began a price war.
2. When the firm has a broader line of complementary products, enabling it to use one as a penetration-priced “loss leader” in order to drive sales of others.
3. When the firm is currently so small that it can significantly increase its sales, beyond the breakeven level illustrated by the constant profit curve, without affecting the sales of its competitors enough to prompt a response.

The telecommunications industry offers an illustrative example of successful penetration pricing. As regulators opened telecom markets to competition in most developed countries, new suppliers successfully used penetration pricing to capture market share. The low variable costs of carrying a call or message make such a strategy desirable. Regulatory constraints and the unwillingness of large, established competitors to match the lower prices of new entrants on their large installed base of customers enabled the strategy to succeed. Still, many telecom managers would question whether a heavy reliance on penetration strategies is sustainable indefinitely because it conditions some portion of the market simply to seek deals rather than good value.

**OPTION 3: NEUTRAL PRICING** *Neutral pricing* involves a strategic decision not to use price to gain market share, while not allowing price alone to restrict it. Neutral pricing minimizes the role of price as a marketing tool in favor of other tactics that management believes are more powerful or cost-effective for a product’s market. This does not mean that neutral pricing is

easier. On the contrary, it is less difficult to choose a price that is sufficiently high to skim or sufficiently low to penetrate than to choose one that strikes a near-perfect balance.

A firm generally adopts a neutral pricing strategy by default because market conditions are not sufficient to support either a skim or penetration strategy. For example, a marketer may be unable to adopt skim pricing when buyers consider the products in a particular market to be so substitutable that no significant segment will pay a premium. That same firm may be unable to adopt a penetration pricing strategy because, particularly if it's a newcomer to the market, customers would be unable to judge its quality before purchase and would infer low quality from low prices (the price-quality effect described in Chapter 3) or because competitors would respond vigorously to any price that undercuts the established price structure. Neutral pricing is especially common in industries where customers are quite price sensitive, precluding skimming, but competitors are quite protective of volume, precluding successful penetration.

Although neutral pricing is less proactive than skimming or penetration pricing, its proper execution is no less important to profitability. Neutral prices are not necessarily equal to those of competitors or near the middle of the range. A neutral price can, in principle, be the highest or lowest price in the market and still be neutral. For many years, Sony TVs were consistently priced above competitors, yet they captured large market shares because of the high perceived value associated with their clear screens and reliable performance. Disney theme parks are premium amusement destinations, yet they still attract a large number of visitors, many more than their competitors do. While Disney adroitly segments this market, offering some higher-priced options such as priority admission, its regular prices represent good value for the money.

### **Step 3: Assess Breakeven Sales Changes**

The next consideration when determining where to set price levels is the relationship between changes in price, volume and profitability. Economic theorists propose pricing based upon estimating the "demand curve" for a product and then "optimizing" the price level given the incremental cost of production. In a relatively small number of markets, this advice is practical. When a company lacks competition so that the demand curve for its brand is the market demand, the effect of price on a firm's sales is more predictable than when it must also account for the effect of price on customer choice between competing brands. It is also possible in some highly competitive markets to estimate demand because large quantities of data are accessible. Manufacturers of leading brands of beer and soft drinks can measure quite accurately the effect of price on sales of a brand, or even a package size, because they can now acquire "big data" from retail stores that enable them to control for changes in almost all of the other factors that can affect brand price elasticity for their product: The type of retailer, the prices in nearby stores, the day of the week, the time of day, and even the weather. This enables them to optimize prices for the sale of small package sizes in convenience stores that occur at the end of a workday, while optimizing differently for larger package sizes sold on weekends in grocery stores. They can quickly re-optimize in response to changes by competitors.

Unfortunately, while price optimization against a known demand curve is ideal in theory, it is in practice usually impractical. The reason lies in the assumption that a “demand curve” is something stable, enabling one to measure price elasticity at a point in time and then use that estimate going forward to predict the effect of price changes on sales. Unfortunately, the demand for individual products or brands within markets is rarely stable or easily measured. The reason: Sensitivity to price depends as much on ever-changing purchase contexts and perceptions as on underlying needs or preferences. For example, contradicting the assumption of a demand curve, the amount of a product that customers will buy at a price point is strongly affected by the prices they paid recently. When gasoline prices are rising, the demand for premium grades of gasoline will fall quickly by a much greater percentage than demand for regular grades. But when prices decline back to where they started, demand for premium grades will not recover quickly. That is, demand when prices are going up is generally much more “price elastic” than when prices are coming down.

Still, one cannot deny the fact that the profitability of a price increase will depend upon whether the loss in sales is not too great, while the profitability of a price decrease depends upon whether the gain in sales is great enough. Economists refer to the actual percentage change in sales divided by the percentage change in price as the “price elasticity” of demand, as expressed in the following equation:

$$E = (\% \Delta Q) / (\% \Delta P)$$

Where  $E$  is price elasticity,  $\Delta$  indicates “change in,”  $Q$  stands for sales quantity, and  $P$  is price.

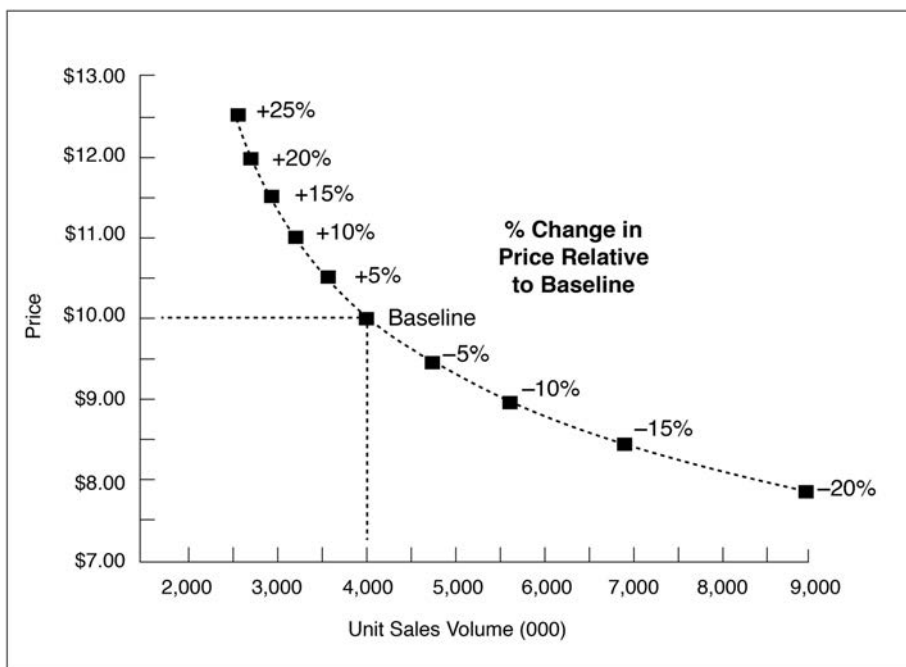
Price elasticity,  $E$ , is generally a negative number since positive price changes (price increases) generally lead to sales declines while negative price changes (price reductions) generally lead to sales increases. The greater the absolute value of  $E$ , the more “elastic,” or responsive, demand is to price changes.

Actual elasticity depends in part upon how effectively marketers manage customer perceptions and the purchase context, as described in Chapter 3. Moreover, many factors that influence price elasticity are not under the marketer’s control, making precise estimates of actual price elasticity very difficult.

**BREAKEVEN SALES CHANGE CALCULATION** Because price elasticity is so difficult to measure precisely in most markets, we have found that instead of asking “What is price elasticity for this product?” it is often more practical and useful to ask “What is the minimum elasticity that would be necessary to justify a particular price change?” that has been proposed to achieve some business objective. To put the question in less technical jargon, we ask “What percent change in sales would be necessary (which is the same as asking what price elasticity would be necessary) for a proposed price change to maintain the same total profit contribution after a price change?” We refer to the answer as the *breakeven sales change* associated with a proposed price change.

If we create a graph of breakeven sales changes associated with different potential price changes, we can create a *breakeven sales curve* that looks much like a demand curve, as shown in Exhibit 6-3. In fact, it is a representation of how much demand is needed to maintain current profitability as prices

EXHIBIT 6-3 Constant Profit Curve Associated with Different Price Changes



change. If actual demand proves to be less elastic (steeper) than the constant profit curve, then higher prices will be more profitable. If the actual demand proves to be less steep (more elastic) than the constant profit curve, then lower prices will be more profitable. Technical details about how to calculate a correct breakeven sales change for any particular product and pricing decision are described in Chapter 9.

The key to price optimization with limited information is to hypothesize price alternatives (e.g., pricing near-competitive prices versus a 10 percent price premium that reflects the value that most customers should enjoy from the differentiating features of the product or service). Then, rather than asking “How will sales volume change following this price change?” which is devilishly difficult to answer with confidence, we suggest that managers answer a pair of questions with more readily achievable answers to guide their pricing choice:

- How much sales volume can I afford to lose before a particular price increase would become unprofitable?
- How much sales volume do I have to gain in order for a particular price decrease to improve profitability?

These are actually much easier questions to answer. As illustrated in Exhibit 6-4, the changes in sales necessary to make a change in price profitable depends essentially on the size of the incremental contribution margin associated with those sales. When performing a breakeven analysis, additional complexities can be introduced, such as what happens if the variable costs change as volume shifts; what if higher sales volumes lead to incremental fixed costs

**EXHIBIT 6-4 Breakeven Sales Changes Required Given Different Contribution Margins**

		Contribution Margin									
		5%	10%	20%	30%	40%	50%	60%	70%	80%	90%
% Change in Price	35%	-88%	-78%	-64%	-54%	-47%	-41%	-37%	-33%	-30%	-28%
	25%	-83%	-71%	-56%	-45%	-38%	-33%	-29%	-26%	-24%	-22%
	15%	-75%	-60%	-43%	-33%	-27%	-23%	-20%	-18%	-16%	-14%
	5%	-50%	-33%	-20%	-14%	-11%	-9%	-8%	-7%	-6%	-5%
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	-5%	NA	100%	33%	20%	14%	11%	9%	8%	7%	6%
	-15%	NA	NA	300%	100%	60%	43%	33%	27%	23%	20%
	-25%	NA	NA	NA	500%	167%	100%	71%	56%	45%	38%
	-35%	NA	NA	NA	NA	700%	233%	140%	100%	78%	64%

(to expand production capacity, for example); or what if a competitor changes its price? Another important consideration is the existence of substitutes and complementary products within the firm’s own product line. It is easier to justify skim pricing when some customers who are deterred by the skim price will substitute a lower-priced offer from the same supplier rather than defect to a competitor. The suppliers of smartphones thus skim price their leading, full-featured option without putting all of the potential margin of a sale at risk. These scenarios can be evaluated through a similar analysis, and all calculations are described in detail in Chapter 9.

The major benefit of a breakeven analysis is its practicality. Very few pricing decisions are made with the luxury of knowing in advance how customers and competitors will react. Even the most rigorous research techniques used to measure expected customer response to price change (described in Chapter 8) rely either on making inferences from past data or rely on customer responses to surveys, both of which are only imperfect predictors of the future. Most managers must make decisions with less quantitative information, relying on subjective judgments and after-the-fact measurement of effects. Incremental breakeven analysis is an approach that leverages knowable data such as current costs and sales volumes to establish clear, indisputable benchmarks that any price change has to meet in order to be profitable. It is a very effective initial step to grounding an internal debate on whether to raise or lower prices.

**Step 4: Gauge Price Elasticity**

After establishing the breakeven sales change necessary for a potential price change to be profitable, it is necessary to make a judgment about whether that sales change is *likely* to be achievable. Sometimes an estimate of past price elasticity can be gleaned from historical transaction data, especially in the case of high transaction volume goods such as groceries or gasoline or common grades of steel. Sometimes examples of past “natural experiments” can be found in such data where prices were changed and the market had

an opportunity to react. These price changes could take the form of changes in list price, temporary price reductions, or competitive price moves that changed the relative price position of competitive products. Even when such natural experiments exist, management still needs to make a subjective judgment about the applicability of the price elasticity measured in the past to estimate the likely effect of a price change now. Are market conditions similar now to those in the past or have they changed? Generally, both consumers and businesses become more price sensitive during poor economic conditions than during times when incomes and profits are rising. Has the competitive set changed? If competitors have now copied some of what was your firm's differentiation, it is reasonable to assume that customers will have become more price sensitive in their brand choice. On the other hand, if competitors have recently had well-publicized quality problems, then it is reasonable to assume that price elasticity might be less than in the past.

One should not avoid incorporating qualitative judgments as well. For example, it is reasonable to ask sales reps whether they would be willing to accept an increase in their sales goals equal to the breakeven sales change in return for granting the additional discounting authority for which they have been asking. Although subjective and subject to bias, their response is still valuable information that may be less precise, but more informed, than "hard" quantitative estimates that were based upon surveys rather than upon actual behavior. It is also reasonable to make some inference from public information from the success or failure of price increases for other product lines similar to your own and sold to the same customers.

In cases where historical transaction data is not available, where there have been no prior price changes to study, or where market conditions are significantly different from those during which past transaction data is available, it can be beneficial to perform research to estimate the potential impact that a price change might have on future demand. Techniques for estimating price elasticity range from the most sophisticated and costly to the least effective but easy to implement; broadly speaking they are: *Controlled-price experiments, purchase-intention surveys, structured inferences, and incremental implementation.*

A thoughtful choice from among these options involves trade-offs between the cost to implement and the quality of data gained to aid in making the pricing decision. Chapter 8 describes these methodologies in detail.

Finally, unless one has the benefit of "big data" to estimate price elasticity with confidence, it is generally wise to implement price changes incrementally. This approach often works well for products for which price changes are not very costly to make or to reverse, such as frequently purchased products and B-to-B products, without long contracts. In this approach, managers simply test customer response by making limited price changes in a series of small steps. The goal is to gradually arrive at a profit-maximizing price point by calculating breakeven sales changes and testing the market to see whether sales changes are on the profitable side of that breakeven point. For example, a maker of distinctive pre-manufactured homes slowly repositioned its brand from being a cheaper alternative to being a premium-priced product with distinctive value in design and reliability. During that period, it raised prices a few percentage points more each year than the prices of similar traditional

homes and tracked the effect on its sales relative to the industry. When the changes no longer improved profits, the manufacturer stopped making them.

### Step 5: Account for Psychological Factors

Although by the time you set a price, you should already have segmented your market to reflect the differences in value for different applications or occasions, there will remain differences in the prices customers will pay even within segments. The drivers of those differences were described in Chapter 3 and are summarized in the box below. They affect what we call “price sensitivity:” a term for the effort and attention that customers will devote to making a purchase with the largest gap between the value they receive and price they pay. For example, even within the same application segment, knowledgeable and highly sophisticated purchasers (such as professional purchasing agents and dedicated bargain hunters), will be much more likely to change their behavior in response to a change in price than will less well-informed customers. The latter will risk getting less for their money in return for making the simple decision to buy the well-known brand or the next brand they encounter. Similarly, customers purchasing larger quantities who have a more urgent need to achieve an objective, or who are making the purchase to achieve a higher-valued end benefit, will pay more.

If a large share of a segment is made up of people who are driven to high-price sensitivity by one or more of these factors, then pricing further below value to win business, or lowering price closer to value to retain business, will be important to motivate the desired customer purchase behaviors.

#### Factors That Influence Price Sensitivity

Researchers have identified a list of factors that influence a buyer’s price sensitivity, including the following:

- **Reference value:** Value is always relative in the minds of customers. By re-framing a customer to view a more expensive alternative as the reference, buyer price sensitivity can be reduced.
- **Switching costs:** Buyers are less sensitive to the price of a product the greater the added cost (both monetary and non-monetary) of switching from their current supplier (if any).
- **Difficult comparison:** Buyers are less price sensitive when it is difficult to compare suppliers and the cost of not getting the expected benefits of a purchase are high.
- **Importance of end-benefit:** Buyers are less price sensitive when the product is a small part of the cost of a benefit with high economic or psychological importance.
- **Price-quality perceptions:** Buyers are less sensitive to a product’s price to the extent that price is a proxy for the likely quality of the purchase.
- **Size of expenditure:** Buyers are more (or less) price sensitive when expenditures are relatively large (or small) as a portion of the overall budget.



- **Shared costs:** Buyers are less price sensitive when some or all the purchase price is paid by others.
- **Transaction value:** Buyers are motivated by more than just the “acquisition utility” associated with obtaining and using a product. They are also motivated by the “transaction utility” associated with the difference between the price paid and what the buyer considers a reasonable or fair offer for the product.
- **Perceived fairness:** Buyers are more sensitive to a product’s price when it is outside the range that they perceive as “fair or reasonable.”

In considering these price sensitivity factors, marketers should seek to understand which of them are relevant for their particular products, and for which segment of customers, in order to influence them favorably through price and value communications. One of the major differences between tactical and strategic pricing is that tactical pricing assumes that price sensitivity is a constant that cannot be influenced. That assumption, which often is made implicitly, simplifies price setting by reducing it to a measurement task. But experienced marketers understand that this simplification comes at a cost, because thoughtful price and value communications can often decrease price sensitivity and support higher prices with less adverse volume impact than would otherwise have been expected.

Consider the example of the Toro Company. The value obtained from purchasing one of their snow blowers depends on the amount of snowfall that a customer is likely to experience—a big uncertainty. In addition, several of the sensitivity factors listed above tend to amplify a buyer’s reluctance to make a purchase: The machines are very expensive, the cost is fully borne by the homeowner, and perhaps most intriguingly, there is a risk perception held by homeowners that the year they purchase a snow blower will be the year that it does not snow! Unfortunately, it is not in Toro’s or retailers’ interest to take on a huge inventory of snow blowers in anticipation of when a snowstorm might arrive and customers come rushing in.

Traditionally, suppliers in markets such as these would simply offer an “early-bird” discount to induce most buyers to purchase well before the snow falls. Toro, however, took a more innovative approach and developed the “S’No Risk Guarantee” whereby the company would rebate a portion of the purchase price should the season’s snowfall come in below average.<sup>5</sup> With its new rebate policy, Toro in essence aligned their price with the value delivered—the less snow to remove, the lower the effective price of the machine. Toro also gave consumers a reason to make their purchases without having to give an “early bird” discount even in years when its snow blowers might end up creating high value that justifies much higher pricing. Additionally, by making the offer conditional on the homeowner making a purchase prior to the start of winter, they eliminated the chaotic impact of demand spikes that regularly occur on the day of a major snowfall.

Based upon the estimate of economic value, the strategic choice, and the evaluation of possible price elasticity relative to the breakeven, it is possible to use judgment to define a relatively narrow “Viable Price Range”. Within

that range, it is important to take account of the price sensitivity effects and determine whether there is a cost-effective marketing campaign that could mitigate or leverage one or more of them to influence price sensitivity. Then, ultimately, management must pick a price level within the viable range that, in their subjective judgment, is most likely to win sales profitably.

## **COMMUNICATING NEW PRICES TO THE MARKET**

The final task in setting a new price level is to communicate the rationale for the change, especially when there is potentially an issue of “fairness.” Perceived fairness is one of the most powerful factors driving price sensitivity. Done correctly, communicating fairness can have dramatic effects. For example, a well-known medical device manufacturer successfully implemented a 40 percent price increase for one of its key products by carefully communicating a rationale for the change. The company recognized that it had made a tactical mistake by not raising prices annually along with industry practice, so it notified customers three months in advance of the increase to allow them to plan for the new prices. Not surprisingly, some customers “bought forward” at the lower prices, loading up before the price increase. But, giving them that option to mitigate the immediate effect of the change made the company’s decision seem fair and reasonable, while also making it more difficult for the firm’s competitor to exploit the increase to gain share.

To further communicate fairness, the company’s letter to customers explained that it had not taken an increase in eight years and noted that the new price was still less than what it would have been had its past prices increased in line with the medical device price index. Finally, the sales force met with each major account to explain that, prior to the price increase, the product was not generating sufficient returns to fund continued research and development (R&D). This was important to hospitals and doctors who relied on the company, a technology leader, to continually incorporate new technology. To reinforce the inherent fairness of the price change, they committed to invest much of the additional profit in R&D that would benefit customers in the form of new products.

Just as there are different reasons for price changes, there are different approaches to communicating fairness. In some instances, rising raw material costs require a price increase. In such situations, customers are concerned about whether the vendor is being opportunistic by raising prices more than is justified and whether all customers, particularly competitors, are being treated equally. To communicate fairness in these situations, first send a letter, email, or press release to all customers simultaneously that explains why across-the-board price increases are necessary. Tie the increase clearly to the cost increase (for instance, “Energy prices have increased 24 percent; energy accounts for 10 percent of the price you pay, so prices must increase by 2.4 percent”) and be prepared to provide documentary evidence. Where possible, consider indexing prices to an objective measure of raw material costs such as a published commodity price index. Customers, and competitors, too, are more likely to accept a price increase if they know that prices will come back down when costs are lower. Indexed pricing is especially useful in times of significant price spikes because indices can be adjusted monthly or weekly depending on the frequency of raw material price changes.

Second, avoid being opportunistic by attempting to gain share by compromising on the increase. It can be tempting to waive a 5 percent increase for customers willing to give you 20 percent more volume, particularly in industries with excess capacity. But such an action may well be short-sighted if your competitors cannot afford to lose volume any more than you can. Although being opportunistic may lead to a short-term volume increase, it will surely invoke a competitive response and send a clear message to customers that the rationale for the price increase was not legitimate. In addition, we would caution against waiving all or part of price increases for your largest customers. Not only is the impact of the price increase diminished, but the diminished impact compounds over the course of several increases.

Third, consider non-price mechanisms to “raise” prices and lessen the customer impact. When faced with a sluggish economy or input cost increases, sellers often turn to less visible mechanisms such as adding a new “fuel recovery” charge to bills for services or reducing package sizes for consumer products. These changes are often barely perceptible to consumers and the familiar price point that consumers are accustomed to remains intact. And in some instances, these non-price adjustments can be remarkably effective. In an attempt to absorb a cost increase, a yogurt maker recently decreased its package size and actually saw its sales soar. The reason? The manufacturer emphasized the now lower calorie count per single-serve package and diet-conscious consumers viewed this as a benefit!

Another mechanism to mitigate the effect of price increases is to use a lower-priced brand (in groceries it is often a “house brand”), to provide a ready alternative for price-sensitive consumers who are at risk of either switching suppliers or reducing the quantity purchased. Another tactic is to incentivize buyers to adopt low-cost behaviors such as online purchasing (common among airlines who waived reservation charges online while cutting payments to travel agents) or encouraging a shift to “off peak” purchase (common among health clubs and cruise lines) to improve capacity utilization. Finally, in some cases, it is possible to switch product formulation: When cotton prices rose, some clothing manufacturers adjusted the fiber content in their garments by substituting cheaper synthetic materials as a way to manage the cost increase.<sup>6</sup>

Another situation that requires communicating fairness occurs when a company increases prices after underpricing its products relative to the value delivered. This occurs frequently when companies begin to assess the economic value of their products for the first time and discover that they have justification to increase prices for some products if they communicate value more effectively. The fairness issue stems from the fact that the company was not charging for value in the first place, so why start charging for it now? This is a legitimate question, the answer to which should be that over time, all prices will be adjusted to align with value. In some cases, this will mean lower prices and in others, higher prices.

To ensure that customers do not think that price increases are being forced on them, offer them options on how they can adjust to the new prices. For example, when large customers resist the price change, offer them the ability to “earn” lower prices by, for example, signing longer-term supply agreements, committing to full-truckload shipments, or other activities that can lower costs. Just be careful in cases where there is industry over-capacity—competitors will

likely retaliate to recapture any lost share. Alternatively, be prepared to unbundle the core offering from services and other value-added features in order to provide a lower-value option at the old price. Whichever approach the company adopts, it is critical that customers pay for the value received. By providing choices for how that happens, you increase the perception of fairness and improve the odds that the price change will be successful.

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## Summary

Setting market-relevant prices requires a combination of both art and science. In spite of the many sophisticated tools and analytics available to marketers, price setting usually comes down to using informed judgment to find a price that balances costs, customer value, strategic goals, and potential competitive responses. The process we have described in this chapter is

designed to create a structured dialogue that leads to informed conversations that “take the emotion out” from a complex and fraught price setting decision. When followed by managers who are informed about their markets and possess basic pricing knowledge, this process will help lead to sustainable and profitable prices.

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## Notes

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# Price Competition

## Managing Conflict Thoughtfully

*Victorious warriors win first and then go to war, while defeated warriors go to war first and then seek to win.*

Sun Tzu<sup>1</sup>

The sixth, and final element, of the Value Cascade is Price Competition. A gap occurs between actual and potential value realization when a firm makes pricing decisions that fail to anticipate the response of competitors to those decisions.

Ironically, there is little issue here for firms that operate in markets with so many competitors, each with a small market share, that there is no potential to manage it. Those firms need merely remain alert to changes in market prices and adjust prices quickly, as described in Chapter 6, when the reference value changes. Managing price competition becomes more challenging, and an unnecessary gap in profitability becomes much more likely, when a firm's market share is large enough that competitors react to its decisions.

The ramifications of competitive reaction can be substantial. Recall the description in Chapter 1 of how Alamo Rent A Car went quickly from being the most profitable rental car company to one suffering losses because it failed to anticipate the reaction of competitors to what may, otherwise, have been a financially sound growth strategy. In contrast, large airlines flying to multiple destinations made a wise decision when they introduced frequent flyer programs in an attempt to blunt the effect of lower prices from small, low-cost competitors. Of course, the small competitors could also offer frequent flyer programs offering the same number of points per mile of travel, but they could not offer the ability to accumulate points as rapidly nor could they offer the same variety of destinations once an award level was attained. Thus the relative inability of lower-cost competitors to react with an offer of equal value enabled larger competitors to create a much-needed source of competitive advantage.

## UNDERSTANDING THE PRICING GAME

Price competition is a “game,” as defined by game theorists, because the ultimate outcome resulting from any move that you make depends upon how your competitors react to it. Making the right choices in a game is very different from making the right choices to solve a puzzle—such as how to make a product more efficiently. Moreover, competitive pricing is a type of game that requires skills foreign to many managers. What most of us know about competition has been learned from sports, academics, and perhaps from participating in intracompany sales contests. The rules for success in these types of competition are quite different from those for success in pricing. The reason, in technical jargon, is that the former are all examples of “positive-sum” games, whereas price competition is usually a “negative-sum” game.<sup>2</sup> Understanding the difference between positive-sum and negative-sum games is crucial to making sound pricing decisions that contribute to profitability and business value.

Positive-sum games are those in which the very process of competition creates benefits. Consequently, the more prolonged and intense the game—in sports, academics, or sales—the greater the rewards to the players. The winner always finds playing such games worthwhile and even the loser may gain enough from the experience so as not to regret having played. In fact, people and companies with a healthy attitude toward these activities often seek opportunities to challenge themselves. A strong competitive spirit is a criterion commonly used to identify job candidates with high potential for success not only in sports, but also in scientific research. It is also indicative of people likely to be successful in sales if the firm creates a competitive culture that honors those who excel in meeting or exceeding sales goals.

Unfortunately, that same gung-ho attraction to competition can be quite unhealthy when applied to negative-sum games: those in which the process of competition imposes costs on players. Warfare, labor strikes and dueling are negative-sum games because the loser never benefits from participation and even the winner may end the confrontation badly wounded. The longer the conflict drags on, the greater the cost it imposes on the players. Price competition is usually a negative-sum game, since the more intense price competition is, the more it can undermine the value of the market over which one is competing. That is likely to be the case where total market demand is increased very little by lower prices and competitors have similar cost structures. Therefore, price competitors do well to forget what they learned about competing from sports and other positive-sum games, and to try instead to draw lessons from what are, hopefully, less familiar competitive games such as warfare.

Students of actual warfare, who are cognizant of its costs do not make the mistake of equating success with winning battles. Sir Basil Liddell Hart, author of more than 30 books on military strategy, offers advice to political and military leaders that marketers would do well to note:

*Fighting power is but one of the instruments of grand strategy—which should [also] take account of and apply . . . financial pressure, diplomatic*

*pressure, commercial pressure, and . . . ethical pressure, to weaken the opponent's will. . . . It should not only combine the various instruments, but also regulate their use as to avoid damage to the future state of peace.<sup>3</sup>*

In short, winning battles is not an end in itself, and warfare is certainly not the only means to an end. In the same vein, winning sales is not an end in itself and reducing prices is not the only, and is rarely the most cost-effective, means for winning new customers.

For marketers, as for diplomats, warfare should be a last resort, and even then the potential benefits of using it must be weighed against the cost. Fortunately, there are many positive-sum ways for marketers to compete. Creating new products, creating new ways to deliver service, communicating more effectively with customers about benefits, and increasing the efficiency of operation are all positive-sum forms of competition. Precisely because they create profits rather than dissipate them, building capabilities for positive-sum forms of competition is the basis of a sustainable competitive strategy. Price competition may also be part of an overall profitable growth strategy. But competing on price alone can succeed at best only in the short term until competitors find it threatening enough to react.

## COMPETING TO GROW PROFITABLY

Unfortunately, many managers erroneously believe that the key to financial success is first to win market share, after which profits will follow (see box “Market-Share Myth” below). When many competitors pursue this same strategy, they engage in mindless negative-sum competition, which does little more than destroy profitability for everyone. Fortunately, there are competitive strategies that can increase, or at least maintain, the value of markets through positive-sum competition. Rather than attracting customers by taking less in margin, positive-sum strategies attract customers by offering them new sources of value or by meeting their needs in new ways that create value more cost effectively. Recall our discussion of Exhibit 1-3 in Chapter 1, where we contrasted Product-led versus Customer-led offer development. Companies grow both top-line revenue and bottom-line profit simultaneously when they can create new sources of customer value without adding as much to cost, or when they can reduce costs without equally reducing the value, enabling them to reduce prices to win sales without reducing margins below those of competitors.

### Market-Share Myth

A common myth among marketers is that growing market share is the key to profitability. If that were true, the largest airlines in North America would be the most profitable while the small upstarts would be struggling. In fact, for most of the last few decades, the opposite has been the case.<sup>i</sup> The source of this myth is a demonstrable correlation between market share and profitability.<sup>ii</sup> But as any student of statistics should know, correlation does not necessarily imply a causal relationship.

A far more plausible explanation for the correlation is that both profitability and market share are caused by the same underlying source of

business success: a sustainable competitive advantage in meeting customer needs more effectively or in doing so more efficiently.<sup>iii</sup> When a company has a competitive advantage, it can earn higher margins due to either a price premium or a lower cost of production. That advantage, if sustainable, also discourages competitors from targeting the company's customers or from effectively resisting its attempts to expand. Consequently, although a less fortunate company would face equally efficient competitors who could take market shares with margin-destroying price competition, a company with a competitive advantage can sustain higher market share even as it earns higher profits. Market share, rather than being the key to profitability, is, like profitability, simply another outcome of a fundamentally well-run company.

Unfortunately, when management misperceives the symptom of a poor strategy (insufficient or declining market share) as a cause and seeks it by some inappropriate means, such as price cutting, the expected increase in profitability doesn't materialize. On the contrary, a grab for market share unjustified by an underlying competitive advantage will usually reduce the company's own and its industry's profitability. The ultimate objective of any strategic plan should not be to achieve or even sustain sales volume, but to build and sustain competitive advantage. Profitability and, in many cases, market share growth, will follow. In fact, contrary to the myth that a higher market share causes higher profitability, changes in profitability usually precede changes in market share, not the other way around. For example, Walmart's competitive advantages made it the most profitable retailer in the United States long before it became the largest, whereas several of its key competitors' poor profitability preceded by many years their loss of dominant market share. This pattern of changes in profitability leading, not following, changes in market share is equally visible in the automobile, steel, and banking industries.

A strategic plan based on building volume, rather than on creating a competitive advantage, is essentially a beggar-thy-neighbor strategy—a negative-sum game that ultimately will only undermine industry profitability. Every point of market share won by reducing margins (either by offering a lower price or by incurring higher costs) invariably reduces the value of the sales gained. Since competitors can effectively retaliate, they probably will—and at least partially eliminate any gain in share while reducing the value of a sale even further. The only sustainable way to increase relative profitability is by achieving a competitive advantage that will enable you to increase sales and margins. In short, the goal of a strategic plan should not be to become bigger than the competition (although that may happen) but to become better. Such positive-sum competition, rather than undermining the profitability of an industry, constantly renews it.<sup>iv</sup>

(i) "Global Earnings Scoreboard: Most Recent 12 Months Reported," *Airline Weekly*, January 9, 2017.

(ii) Robert D. Buzzell, Bradley T. Gale, and Ralph Sultan, "Market Share—A Key to Profitability," *Harvard Business Review* (January 1975).

(iii) Robert Jacobson and David Aaker, "Is Market Share All That It's Cracked Up to Be?" *Journal of Marketing* 49 (Fall 1985), pp. 11–22; Richard Schmalensee, "Do Markets Differ Much?" *The American Economic Review* 75(3) (June 1985), pp. 341–351; William W. Alberts, "The Experience Curve Doctrine Reconsidered," *Journal of Marketing* 53 (July



1989), pp. 36–49; Cathy Anterasiun, John L. Graham, and R. Bruce Money, “Are U.S. Managers Superstitious about Market Share?” *Sloan Management Review* (Summer 1996), pp. 67–77; Linda L. Hellofs and Robert Jacobson, “Market Share and Customers’ Perceptions of Quality: When Can Firms Grow Their Way to Higher Versus Lower Quality?” *Journal of Marketing* 63 (January 1999), pp. 16–25; J. Scott Armstrong and Kesten C. Green, “Competitor-Oriented Objectives: The Myth of Market Share” *International Journal of Business* 12(1) (2017), pp. 115–134.

- (iv) For evidence that there are profit leaders in the bottom and middle ranges of market share almost as frequently as in the top range, see William L. Shanklin, “Market Share Is Not Destiny,” *Journal of Business & Industrial Marketing* 4 (Winter–Spring 1989), pp. 5–16; and “The ‘Myth of Market Share’: Can Focusing Too Much on the Competition Harm Profitability?” at Knowledge@Wharton, January 24, 2007.

When competitors cannot immediately or cost-effectively duplicate new ways of creating value, a company that creates those new ways achieves a “competitive advantage.” Unfortunately, some managers completely misunderstand the concept of competitive advantage and its importance for long-term profitability. We hear them report that they have a “competitive advantage” in having more stores than the competition, more knowledgeable salespeople, or higher quality. None of these is a competitive advantage unless they also enable the firm to deliver value more cost-effectively than their competitors can or convince their customers to pay a premium for the extra value delivered. Offering customers a more attractive offer by accepting a lower margin than the competition may be a sales advantage, but it is not a sustainable competitive advantage, since competitors can easily match it and because it reduces the return from investing in other, non-price means to win sales.

How can a firm achieve competitive advantage? Sometimes it’s by luck. Oil companies in the Middle East, for example, enjoy oil fields from which oil can be more cheaply extracted than from those in Manitoba, Norway, or Kazakhstan.<sup>4</sup> Often, advantage comes from moving first on a new idea. By winning a patent, by gaining economies of scale, or by preempting the best locations, a firm may achieve an advantage that would be more costly for a later entrant to match. Uber has built a lead in car hire by investing heavily in technology—both current technology and in what will be required in the future for driverless cars—thereby increasing the potential value and cutting the cost of car services. Once frequent users had downloaded its app, it became much more costly for potential competitors to acquire customers or to recruit drivers.

More often, competitive advantages are carved out of the efficient management of a firm’s value chain. Michael Porter, the Harvard competition guru, cites three ways that companies can proactively manage operations to achieve competitive advantage:<sup>5</sup>

- *Needs-Based Positioning*—based on serving the needs of only a particular customer segment or niche, which enables the firm to tailor its operations to meet the unique needs of that segment more cost-effectively.
- *Access-Based Positioning*—based on the company’s ability to gain access to customers in unique ways. Access can be a function of geography or customer scale. For example, serving a uniquely wide or narrow geographic market, based on the firm’s cost structure, can create a unique cost and service advantage.

- *Focus-Based Positioning*—based on developing a unique capability to do one or more narrowly focused activities that add value to value chains across industries. Because the focused activity does not add value alone, a focused supplier must closely monitor and coordinate its operations with other suppliers that manage the value chain.

Whole Foods is an example of a company that has created competitive advantage with “needs-based positioning.” The company defined a higher standard for acceptable ingredients in foods and acceptable practices in dealing with food suppliers. The standard appeals to food buyers who are exceptionally concerned about the source and quality of ingredients when purchasing foods and personal care products. More importantly, those people are willing to pay more for products that meet Whole Foods’ high standards. In North America, the company has essentially replaced a cottage industry of small “health food” stores carrying a limited selection of items with large stores carrying a “purer” substitute for practically anything one could find in a regular grocery store. As regular grocers have expanded the number of products they offer for this segment, Whole Foods has been able to expand its offers as well to maintain a large portion of each customer’s shopping basket. Although the company has suffered during economic downturns when a smaller share of the market is willing to pay the Whole Foods price premium, the company’s sales and profits recover equally as strongly during business cycle recoveries. Consequently, the advantage created by the company’s unique positioning has enabled it to outperform the traditional grocery retail segment on both profit margins (EBITDA/Revenue) and growth over the long term.

The U.S. beer industry offers a classic case of “access-based positioning,” with firms both widening and narrowing their geographic reach to achieve competitive advantage. Companies with a national presence, such as Anheuser-Busch InBev enjoys a huge competitive advantage in purchasing television advertising space at low national rates. It leverages that advantage to overwhelm smaller regional competitors with a volume of advertising that they cannot afford to match. The growth of smaller regional competitors is limited by the need to rely on local cachet and word-of-mouth promotion to operate profitably.

MathWorks is a prime example of a focus-based supplier. The Massachusetts-based company has developed a capability to develop mathematical algorithms that enable other companies’ equipment or software to operate more efficiently. In some cases, an end-user might buy an algorithm—which can be delivered on a thumb drive—to enable their CAD (Computer Aided Design) equipment to operate better or a manufacturer might license an algorithm from MathWorks to include in the original design of its product. By focusing its business purely on the solution of complex math problems, MathWorks mathematicians gain experience and cross-industry insight that similarly skilled employees of a less specialized company could not duplicate.

These examples illustrate that the key to achieving sustainable profitability is to manage the business for competitive advantage. Unfortunately, many companies in competitive markets still focus on revenue growth, which they pursue by trying to be all things to all people, rather than focusing on creating value more cost-effectively. Porter calls the failure to achieve either a value or a cost advantage “getting stuck in the middle.” When such companies are exposed to competitors, some of whom offer higher quality or service while others offer lower prices, the firm’s profitability gets squeezed, despite its size.<sup>6</sup>

In the absence of a relative cost advantage, it is ultimately suicidal to drive growth with price. During the internet technology bubble of the late 1990s, hundreds of internet retailers and willing investors were hoping to prove this statement wrong. They accepted lower, even negative, margins simply to build share in the belief that ultimately the high value-add from the online shopping experience would make them profitable. They ignored a simple economic principle: Competition drives out profitability except for those with a source of advantage that prevents competitors from fully matching their costs or their value proposition. As a result, most of the early online visionaries went bankrupt, at huge cost to their investors despite the growth of the internet as a platform for doing business.

There were a few exceptions, namely, those internet newcomers who could create online advantages that later competitors could not duplicate. eBay, for example, enjoys margins and profitability that exceed those of both online and bricks-and-mortar competitors, not just because of the high value of trading online but because of the greater difficulty any lower-priced competitor would face in trying to duplicate its online offerings. Once eBay gained a large user-base advantage, it became nearly impossible for any competitor to duplicate the value it offers traders. PayPal is a similar story. It attracted customers quickly because it satisfied a strong unmet need for greater security when making purchases from previously unknown online retailers with no known address. But no consumer or retailer needs a second service like that one, so its first-mover advantage was huge. A new competitor would likely have to pay for incentives to induce people to sign and use it rather than remain with PayPal, creating a large barrier to entry.

The measure of a firm's competitive advantage is its relative gross margin per sale, not its market share. We focus on gross margin, not operating margin, because gross margin is a measure of the value of an incremental sale. A large firm with relatively low gross margin can be expected to shrink, even when competing with a much smaller firm that is nonetheless more efficient in creating value. The latter firm's greater margin per incremental sale can fund more marketing activities that will ultimately undermine the market share of the larger firm. That is exactly what happened to the "big three" U.S. auto companies when smaller Japanese and Korean rivals entered the North American market with lower costs and higher gross margins per car. Despite starting with a much higher market share, the big three could not afford to match what these new entrants could profitably invest in marketing, dealer incentives, and customer service to acquire more customers at the expense of the larger competitors.

The airline industry tells a similar story. The low-cost structure of some discount airlines makes them advantaged competitors in many markets, even when competing against larger airlines, because their low cost-per-seat-mile generates higher gross margins even after accounting for its lower prices. Consequently, this cost advantage allowed some of the so-called "low-cost carriers" (LCCs) to grow at the expense of their larger competitors. In the long run, however, a firm's ability to acquire market share is limited to those market segments it can acquire and hold with a higher gross margin than competitors can. As these LCCs expanded into serving major airports, with their high gate costs and ground delays, the size of advantage diminished for many of these airlines. In fact, as their cost advantages narrowed, many LCCs have instead invested in new offers such as in-air Wi-Fi, premium boarding and seating, and expansion of their networks to compete on value, not just price.

## REACTING TO COMPETITION: THINK BEFORE YOU ACT

Many managers are so fully aware of the risks of price wars and the importance of competing from a position of strength that they think coolly and logically before initiating price competition. It is much harder for most of us to think logically about whether or how to respond when we are already under attack. Consequently, we will discuss in step-by-step detail how to analyze a competitive situation and formulate responses in price-competitive markets that are not of your making.

When is it financially more prudent to accommodate a competitive threat, at least in the near term, until you can improve your capabilities, than to retaliate? Thinking through this question does much more than prepare you, intellectually and psychologically, to make the best competitive response. It also reveals weakness in your competitive position. If you do not like how often you must accommodate a competitor because your company cannot fight the threat successfully, you will begin searching for a competitive strategy that either increases your advantage or moves you further from harm's way.

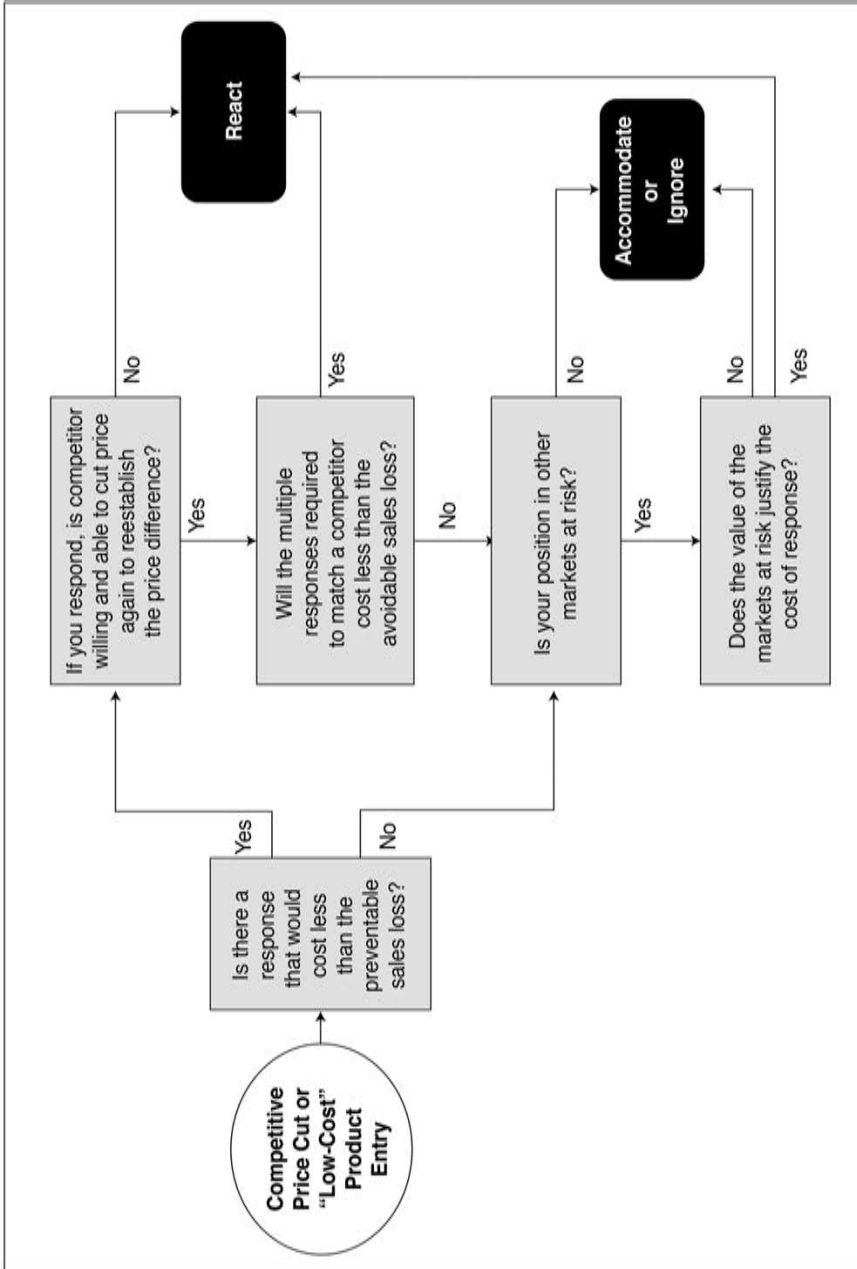
Exhibit 7-1 illustrates the complex flow of thinking required to make thoughtful decisions about reacting to price competition. The exhibit begins with the assumption that one or more competitors have cut their prices or have introduced new products that offer at least some of your customers more value for their money. How should you respond? Marketing theorists usually argue that one should never respond, since there are better, positive-sum ways to compete on product or service attributes. While that is often true, the time to have explored and implemented those ideas is usually long before a low-priced competitor is a threat. By the time the threat is obvious, a firm's strategic capabilities are fixed in the short run. The question at hand is whether to respond with price when threatened with a loss of sales by a lower-priced competitor. To determine whether a price response is better than no response, one must answer the following questions and explore the interrelationships illustrated in Exhibit 7-1.

### 1. Is there a response that would cost less than the preventable sales loss?

Although the need to ask this question might seem obvious, many managers simply stop thinking rationally when threatened. They match any price cut without asking whether the cost is justified by the benefit, or whether the same benefit could be achieved by structuring a more thoughtful response. In Chapter 9, we describe how to calculate the amount of sales that would need to be at risk (the Reactive Breakeven Sales Change) before the act of matching a competitor's price reduction justifies the cost. If we conclude that reacting to a price change is cheaper than losing the sales, then it may be a good business decision. On the other hand, if a competitor threatens only a small portion of your sales, the sales loss associated with ignoring the threat may be much less than the cost associated with retaliation. Since the threat is small, the cost of cutting the price on all of your sales in order to prevent the loss of some sales to a competitor is likely to be unwise. Within a market or market segment that can be targeted for pricing by a competitor, the larger a firm's total market share the less profitable it will be to cut prices to win the business of more price-sensitive customers.

It is also important to be realistic about how much of the projected sales loss is really preventable. When a new grocery chain opens with lower prices,

EXHIBIT 7-1 Thoughtfully Reacting to Price Competition



the established competitors can surely reduce the sales loss by matching its prices. Still, even if they match, some people will shift to the new store simply because it is newer or more convenient to where they live. They will not return even if the competitor's price advantage is eliminated.

By constraining an organization's competitive reactions to only those that are cost-effective, managers also force their organizations to think about how to make their price reactions more cost-effective. Following are some principles that can substantially reduce the cost of reacting to a price threat.

*Focus your reactive price cut on only those customers likely to be attracted by the competitor's offer.* This requires developing a "flanking" offer that is attractive or available only to the more price-sensitive buyer. Often, such an offer can be developed in a short period of time, since it involves merely eliminating some element of the product or service not highly valued by the price-sensitive segments. During the recession in 2009, consumers began migrating to cheaper house brand grocery and cleaning products while supermarkets began promoting them more aggressively. This contributed to an 18 percent decline in revenues for Procter & Gamble. In response, the company introduced flanking brands, like Tide Basic detergent at prices 20 percent lower than the original brands.<sup>7</sup> Many analysts have questioned the wisdom of this move, but there is an obvious benefit: it prevents some of the defection to house brands and gives P&G the ability to eliminate the flanking brands when consumers again feel able to pay for its more value-added brands.

*Focus your reactive price cut on only the incremental volume at risk.* A cheaper competitor will often be unable to entirely replace an incumbent's business, but will be able to gain a share of its competitor's business. For example, if a smaller independent television network, such as the CW Network in North America, cuts its ad rates, advertisers are not going to abandon the large networks like NBC or Fox. They are, however, going to be more likely to divert some dollars to CW from the big networks. A big network could neutralize that threat by offering to discount its ad rates to the level of the independent network's rates just for the amount of advertising likely to be diverted. One way this could be structured is as a discount for all purchases in excess of, say, 80 percent of the prior year's purchases or expected purchases. These types of contracts are common not just for advertising, but also for drugs and medical supplies sold to health maintenance organizations (HMOs). Retaliatory discounts applicable only to the incremental volume at risk are also common when pricing to retailers and distributors.

*Focus your reactive price cut on a particular geographic area or product line where the competitor has the most to lose, relative to you, from cutting the price.* A dominant cement manufacturer in an Asian country (disguised as "Country A") began a drive to grow its share in a neighboring country ("Country B") by building its own unloading facility there and acquiring new mixing capacity, after which it undercut prices in the newly entered market. What the company from Country A failed to think through was the fact that its high prices and high share in its home market left it vulnerable to retaliation. The incumbent leader in Country B reacted by flooding its competitor's home market, driving cement prices down by 26 percent in just one year.

*Raise the cost to the competitor of its discounting.* If the competitor's price move is limited only to new customers and the competitor has a market of existing customers, it may be possible to retaliate without cutting your own price at all. Consider retaliating by educating the competitor's existing customers that they are

being treated unfairly. A client of ours did this simply by making sales calls to its competitor's most profitable accounts. In the process of the call, the salesperson casually suggested, "You are probably paying about \$X for this product now." When the customer questioned this, the salesperson confessed that he really did not know what they were paying but had surmised the figure based on the prices that his competitor offered recently to some other accounts, which he named. In short order, the customer was on the phone with its incumbent supplier demanding similar discounts, and the competitor quickly backtracked on its aggressive offers. Even in consumer markets, it is sometimes possible to appeal to customers' sense of fairness or civic pride to convince them to reject a discounter. Small, local retailers have successfully done this to prevent big-box retailers from opening stores in Vermont that would no doubt hurt the less efficient, but traditional, local retailers.

Retailers frequently use a related tactic of widely promoting a policy that promises to match the price of low-priced competitors. If a competitor advertises a lower price, then the retailer offers to refund the difference to any of its customers paying a higher price within a reasonable time period, say 30 days following the sale. Only a few very price-sensitive buyers will take the time to gather evidence of the lower advertised competitor prices, and then ensure that the sales receipt for their purchased model matches precisely the competitor's advertised model—all for merely the value of the price differential, often relatively small. However, the price-matching policy is not targeted at all buyers, or even just price-sensitive buyers; instead, it is a signal to other retail competitors of the futility of aggressive price-discounting strategies. After the substantial reduction in margins they incur by heavy discounting, their competitors simply neutralize the advantage by rebating to customers the difference. The result is that these deep-discount competitors are better off playing by the rules of established non-price competition in the category. In North Carolina, the Big Star and Winn-Dixie supermarket chains both announced price-matching policies to "meet or beat" the prices of aggressive rival Food Lion. Two years later, the number of products with essentially the same prices across these three competitors increased significantly, and the prices for these products increased as well.<sup>8</sup>

*Leverage any competitive advantages to increase the value of your offer as an alternative to matching the price.* The key to doing this without simply replacing a price war with a quality or service war is to make offers that are less costly for you to offer than for your competitor to match. If, for example, you have much better quality, offer a better warranty. If you have more service centers in more locations, offer faster service. Major airlines respond to price competition from smaller upstarts by offering increased frequent flyer miles on newly competitive routes. Because of their large route systems, frequent flyers accumulate miles faster and enjoy more choices of destinations than anything the small competitors could offer other than price. Moreover, the more sophisticated yield management systems of the large airlines minimized the cost of such programs more effectively than smaller carriers could.

If any of these options is less costly than simply allowing the competitor to take some sales, it is worth continuing to pursue the idea of possibly reacting, rather than ignoring, a lower-cost competitor. Otherwise, it is almost always better to preserve margins at the expense of market share, spending the added cash flow from those margins on other ways to improve your cost-effectiveness or your ability to add value that justifies a price premium.

## **2. If you respond, is your competitor willing and able to cut price again to reestablish the price difference?**

Matching a price cut will do you no good if the competitor will simply reestablish the advantage. Ask yourself why the competitor chose to compete on price in the first place. If that competitor currently has little market share relative to the share that could be gained with a price advantage, and has no other way to attract customers, then it has little to lose from bringing price down as low as necessary to gain sales. This is especially the case where large sunk costs create substantial “exit barriers.”

At one point, a pharmaceuticals company ask us to recommend a pricing strategy to defend against a new entrant. Management was initially surprised when we told them that defending their sales with price was unwise. Only after thinking about the problem from the competitor’s standpoint did we fully understand the competitive dynamics they faced. Customers had no reason to try the competitor’s new drug without a price advantage, since it offered no clinical advantages. The new entrant had absolutely nothing to lose by taking the price down, since it had no sales anyway. Given that the huge investment to develop and test the drug was entirely sunk but that the manufacturing cost was small, winning sales even at a low price would be a gain. The conclusion was obvious that the competitor would cut price as often as necessary to establish a price advantage. If our client insisted upon preventing the new competitor from gaining significant market share, they would have risked destroying the value of the market.

## **3. Will the multiple responses required to match a competitor cost less than the avoidable sales loss?**

Think about the total cost of a price war, not just the cost of the first shot, before concluding that the cost to defend the sales at risk is worth bearing. Unfortunately, the pharmaceutical client described above did not take our advice, instead resolving to do whatever was necessary to prevent the new entrant from gaining a significant foothold in any major pharma market. By the end of the competitor’s first two years in the market, it had largely succeeded in retaining more than 80 percent market share. It did so at the cost, however, of an average wholesale price decline of more than two-thirds. The devastating effect on profit contribution led to a complete review of what had happened and recognition that they could not afford to repeat such a mistake in the future.

Partisans of pricing for market share would no doubt disagree with our reluctance to use price defensively, especially when one is already in a stronger market position. Large market-share companies, they will argue, are sometimes better capitalized and, thus, better able to finance a price war than are smaller competitors. Although price cutting might be more costly for the large-share firm in the short run, it can sometimes bleed the competitor financially until it is forced to withdraw. The reason defensive pricing failed in the case of our pharma client was, they would argue, that the competitor had many other profitable drugs that could subsidize its losses on its new launch. If the competitor had relied on that one drug’s profitability for survival, it would have succumbed and been a lesson to others not to challenge our client’s market leadership in the future.



Although such a “predatory” response to competition sounds good in theory, there are two reasons why it rarely works in practice. First, predatory pricing is a violation of U.S. and European antitrust laws if the predatory price is below the predator’s variable cost. Such a pricing tactic may in some cases be a violation when the price is below the average of all costs.<sup>9</sup> Consequently, even if a large competitor can afford to price low enough to bankrupt its smaller competitors, it often cannot do so legally. But, even putting legal issues aside, predation is cost-effective only if the predator gains some competitive advantage as a result of winning the price war. This occurs in only two cases: when eliminating a competitor destroys an important differentiating asset (for example, its accumulated goodwill with customers); or when it enables the predator to gain or maintain such a cost advantage (such as economies of scale) that it can profitably keep its prices low enough to discourage new entrants.

Unless driving a low-cost competitor into bankruptcy somehow destroys the assets of that competitor, a newly capitalized entrant can purchase the assets of the bankrupt competitor, operate at a lower cost base, and initiate price-based competition against the large firm now itself financially weakened by the cost of the first price war. Repeated price wars to defend market share eventually weakens market leaders financially to the point where they are vulnerable. For decades, the largest airlines in America fought price wars with new entrants, most of which bought cheap, older planes and had much lower labor costs, often from non-union labor. The market leaders still managed to drive many of those new entrants from the market by operating at a loss where they faced competition. Still, they all eventually succumbed to bankruptcy. Eventually however, they learned from the lesson. Rather than spending money on money-losing price wars, they reduced capacity in markets where competition made operations unprofitable, invested in more fuel efficient planes than the old ones flown by many low-cost competitors, and more creatively segmented their markets to reduce the cost to compete for price-sensitive customers (by eliminating fees to agents and such amenities as free bag check, food, and pillows).

The key to surviving a negative-sum pricing game is to avoid confrontation unless you can structure it in a way that you can win, and calculate that the likely benefit from winning exceeds the likely cost. It simply makes no sense to match competitor’s price discounts unless one can do so at a cost that is less than what one would lose from ceding some market share.

To recognize such situations, however, a manager must think rationally, remember that this is a negative-sum game, and suppress the understandable emotional reaction to never back down.

#### **4. Is your position in other (geographic or product) markets at risk if a competitor is successful in gaining share?**

Does the value of the markets at risk justify the cost of a response? Some sales have a value that far exceeds the contribution directly associated with them. Take this example from the competitive PC and peripherals market in 2004. Following Dell Computer’s introduction of a new line of computer printers, Hewlett-Packard (HP) immediately severed its relationship to supply HP printers to Dell, signaling the strategic importance to HP of its printer business. HP strengthened its response by cutting its PC prices to match Dell’s,

where Dell had much more to lose. Finally, HP realized that Dell's printer strategy had its own limitations. Dell sourced its printers and cartridges from a third-party supplier, Lexmark, limiting Dell's typical cost advantage. So HP defended its lucrative printer business, not with price, but with aggressive product innovations. It introduced new printer models, including digital printing with greater savings for corporate customers that led to higher revenues and overall printer market share gains.<sup>10</sup>

Retaliatory price cuts are all too often justified by vague "strategic" reasons unrelated to profitability. Before approving any retaliatory price cut for strategic reasons, two things should be required. The first is a clear statement of the long-term strategic benefit and risks. The benefit can be additional sales in this market in the future. It can be additional immediate sales of complementary products, such as sales of software and peripherals if one wins the sale of a computer. It can be a lower cost of future sales because of a competitive cost advantage resulting from the added volume. The risks are that a targeted price cut will spread to other customers and other markets, and that competitors will react, again creating a downward price spiral that undermines profits and any possibility of long-term gain.

### **5. Does the value of the markets at risk justify the cost of response?**

The second requirement to justify a strategic price cut is a quantitative estimate of the value of the strategic benefit. This need to quantify often encounters resistance because managers feel that the task will delay response to an imminent threat. Usually, however, rough estimates are all that is necessary to achieve enough precision to make a decision. A company told us that they always defended price in the institutional segment of their market because sales in that segment drove retail sales. While the relationship was no doubt true, the magnitude of the effect was important given that pricing to the institutional segment had fallen to less than manufacturing cost. A simple survey of retail customers about how they began using the product revealed that only about 16 percent of retail sales were driven by institutional sales. We then estimated the cost of maintaining those sales by retaining all of the client's current institutional sales and compared that with the cost of replacing those sales through expenditures on alternative forms of promotion. That simple analysis drove a complete change in the institutional pricing strategy. Moreover, as institutional prices rose, "leakage" of cheap institutional product into the retail chain market declined, producing an additional return that had not been anticipated.

## **MANAGING COMPETITIVE INFORMATION**

All wars, whether shooting wars or price wars, occur because someone made a terrible mistake. Since wars are negative-sum games, it is always the case that the loser would have been better off not to capitulate, or at least to retreat to fight another day on better terms. This is the reason that the skills of a diplomat are as important for managing negative-sum conflict as are the skills of a general. This does not mean that one should be friendly with one's competitors or even fair. Diplomats are not always nice, but they manage information and expectations to achieve their goals without unnecessary confrontation. If they find it necessary to use force, they seek to limit its use to the amount necessary

to make their point. In the diplomacy of price competition, the meaning that competitors ascribe to a move is often far more important than the move itself.

The decision to cut price to gain a customer may have radically different long-term effects, depending upon how the competitor interprets the move. Without any other information, the competitor would probably interpret the move as an opportunistic grab for market share and respond with defensive cuts of its own. If, however, the discount is structured to mimic exactly an offer that the same competitor made recently to one of your loyal customers, the competitor may interpret the cut as reflecting your resolve to defend that segment of the market. As such, the cut may actually reduce future opportunism and help stabilize industry prices.

Consider how the competitor might interpret one more alternative: your price cut is totally unprovoked but is exceptionally large, more than you have ever offered before and probably more than is necessary to take the business. Moreover, it is preceded by an announcement that your company's new, patented manufacturing process not only added to capacity but also substantially reduced incremental manufacturing costs. In this case, an intelligent competitor might well interpret the price cut as fair warning that resistance against your grab for market share will be futile.

Managing information requires collecting and evaluating information about the competition, as well as communicating information to the market that may influence competitors' moves in ways desirable to your own objectives.

## **COLLECT AND EVALUATE COMPETITIVE INFORMATION**

Many companies operate with little knowledge of their competitors' prices and pricing strategies. Consequently, they cannot respond quickly to changes. In highly competitive markets, such ignorance creates conditions that invite price warfare. Why would an opportunist ever cut price if it believed that other companies were willing to retaliate? The answer is that the opportunist's management believes that, by quietly negotiating or concealing its price cuts, it can gain sufficient sales volume to justify the move before the competitors find out. This is especially likely in industries with high fixed costs (or high-percentage contribution margins) and during peak seasons when disproportionate amounts of business are at stake.

To minimize such opportunistic behavior, competitors must identify and react to it as quickly as possible.<sup>11</sup> If competitors can react in one week rather than three, the opportunist's potential benefit from price cutting is reduced by two-thirds. At the extreme, if competitors could somehow react instantly, nearly all benefit from being the first to cut price could be eliminated. In highly competitive markets, managers "shop" the competitors' stores and monitor their advertising on a daily basis to adjust their pricing<sup>12</sup> and the large chains maintain communication systems enabling them to make price changes quickly in response to a competitive threat. As a consequence, by the time most customers even learn what the competition is promoting in a given week, the major competitors have already matched the price.

Knowledge of competitors' prices also helps minimize a purchasing agent's ability to promulgate misinformation. Frequently in business-to-business markets, price wars begin without the intention of any competitor involved. They are caused by a purchasing agent's manipulation of information.

A purchasing agent, frustrated by the inability to get a better price from a favored supplier, may falsely claim that he or she has been offered a better deal from a competitor. If the salesperson doesn't respond, a smart purchasing agent may give the threat more credibility by giving the next order to a competitor even without a price concession. Now the first company believes that its competitor is out "buying business" and will, perhaps, match the claimed "lower price" on future orders to this customer, rewarding this customer's duplicitous behavior. If the first company is more skilled in price competition, it will not match the "lower price," but rather will retaliate by offering the same discount to other good customers of the competitor. The competitor will now see this company as a threat and begin its own cuts to defend its share. Without either competitor intending to undermine the industry price level, each has unwittingly been led to do so. The only way to minimize such manipulation is to monitor competitors' prices closely enough so that you can confidently predict when a customer is lying.<sup>13</sup>

Even when purchasers do not lie openly, their selective communication of information often leaves salespeople with a biased perspective. Most salespeople think that their company's prices are too high for market conditions. Think about how a salesperson is informed about price. Whenever the salesperson loses a piece of business, the purchaser informs the salesperson that the price was "too high." When he or she wins the business, however, the purchaser never tells the salesperson that the price was unnecessarily low. The purchaser says the job was won with "the right price." Salespeople get little or no information about how much margin they may have left on the table.

There are many potential sources of data about competitors' prices, but collecting those data and converting the data into useful information usually requires a formalized process. Many companies require that the sales force regularly include information on competitors' pricing in their call reports. Having such current information can substantially reduce the time necessary to respond to opportunism since someone collecting information from multiple salespeople and regions can spot a trend much more quickly than can an individual salesperson or sales manager. Favored customers can also be a good source of information. Those that are loyal to the company, perhaps because of its quality or good service, do not want their competitors to get lower prices from another source. Consequently, they will warn the favored supplier when other suppliers issue new price sheets or when they hear that a competitive supplier is discounting to someone else. A partnership with such a customer is very valuable and should be treated as such by the seller.

In highly competitive markets, the information collected should not be limited to prices. Understanding plans and intentions is equally important. We recently worked with a client frustrated by the low profitability in its service industry, despite record revenue growth. In the process, we learned that the industry had suffered from overcapacity but recently had experienced multiple mergers. What was the purpose of those mergers? Was it to gain cost efficiencies in manufacturing or sales that would enable the new company to offer low prices more profitably? Or was it to eliminate some inefficient capacity, enabling the merged company to consolidate its most profitable customers in fewer plants, eliminating the need to win incremental business? We found answers to those questions in the competitor's briefings to securities analysts, causing our client to rethink its own strategy.

Trade associations, independent industry monitoring organizations, securities analysts, distributors, and technical consultants that advise customers on large purchases are all good sources of information about competitors' current pricing moves and future intentions. Sometimes trade associations will collect information on prices charged in the prior week and disseminate it to members who have submitted their own prices. Monitoring prices quoted at trade shows can also be another early tip-off. In retail businesses, one can simply "shop" the competitive retailers on a regular basis. In the hotel industry, nearby competitors regularly check their competitors' prices and room availability on particular nights by calling to make an unguaranteed reservation or checking an online hotel booking site. If price competition is important enough as a determinant of profit in an industry, managers can easily justify the cost to monitor it.<sup>14</sup>

### Selectively Communicate Information

It is usually much easier for managers to see the value of collecting competitive information than it is for them to see the value in knowingly revealing similar information to the competition. After all, information is power. Why should anyone want to reveal a competitive advantage? The answer: So that you can avoid having to use your advantage in a negative-sum confrontation.

The value of sharing information was obvious, after the fact, to a company supplying the construction industry. Unlike most of its competitors as well as most economists, the company accurately predicted a recession and a construction slowdown looming on the horizon. To prepare, the company wisely pared back its inventories and shelved expansion plans just as its competitors were continuing to expand. The company's only mistake was to keep its insight a secret. Management correctly felt that by retrenching more quickly than its competitors, it could weather the hard times more successfully, but when competitors desperately cut prices to clear bloated inventories, the entire industry suffered. Had the company publicly shared its insight, which would have thus discouraged its competitors from overexpansion, its own financial performance would have been more profitable even though relatively less outstanding. The lesson: It is often better to earn just an average return in a profitable industry than to earn an exceptional return in an unprofitable one.

Even company-specific information—about intentions, capabilities, and future plans—can be useful to reveal unless doing so would preclude achieving a first-mover advantage into a new market. Such information, and the information contained in competitors' responses, enables a company to establish plans "on paper" that are consistent with competitors' intentions, rather than having to reach consistency through the costly process of trial and error.

- **Pre-announce price increases.** One of the most important times to communicate intentions is when planning a price increase. Even when a price increase is in the interest of all suppliers, an attempt to raise prices will often fail. All may not immediately recognize that an increase is in their interest, and some may hope to gain sales at the expense of the price leaders by lagging in meeting the increase. Other times, an increase may not be in the competitor's interest (perhaps because its costs are lower), meaning that any attempt to raise prices will ultimately fail. Consequently, before initiating a price increase that it anticipates competitors will follow, a firm's management should publicly explain the industry's need for higher prices

and, if possible, announce its own increase well in advance of the effective date. This “toe in the water” approach enables management to pull back from the price increase if competitors do not join in. This approach can be repeated multiple times until competitors understand that a price increase won’t go through without them or the firm learns that it lacks the competitive strength necessary to lead such a change.

- **Show willingness and ability to defend.** Some pricing policies that may seem to weaken a seller’s position with customers may actually reduce competitive pressure by discouraging competitor’s low price offers. For example, when a retailer offers to meet or beat any competitor’s price on the same brand of product, the tactic reduces competitors’ expectations that advertising low prices to take share will be a successful strategy, thus reducing price competition. Similarly, a supplier who negotiates a “right of first refusal” to match any competitive price in order to remain a customer’s exclusive supplier may discourage competitors, if they know about this clause, from wasting time to prepare competitive bids that will fail unless they are so low as to make the business unprofitable.
- **Back up opportunism with information.** While an opportunistic price cut to buy market share is usually short-sighted, it is sometimes an element of a thoughtful strategy. This is most often the case when a company uses pricing to leverage or to enhance a durable cost advantage. Even companies with competitive advantages, however, often win only pyrrhic victories in battles for market share. Although they ultimately can force competitors to cede market share by undercutting rivals on price, the costs of battle frequently exceed the ultimate value of the reward. This is especially true when the war reduces customer price expectations and undermines loyal buyer–seller relationships.

The key to profitably using price as a weapon is to convince competitors to capitulate. A Japanese company invited the two top operations managers of its American competitor to the opening of its new plant. After attending the opening ceremony, the company took all guests through the highly automated facility. The American managers were surprised to see the process so highly automated, all the way to final packing, since quality control usually required human intervention at many points in the process. When asked about this, the Japanese hosts informed the guests that this plant was the first to use a new, proprietary process that essentially eliminated the major source of defects. They also indicated that development of the process had taken them more than a decade.

On the way home, realizing now what could be done, the American engineers were eagerly speculating about how this improvement might be achieved and how much they should ask for in a budget to pursue research. They also wondered why their Japanese counterparts would reveal the existence of such an important trade secret. Within a few months they got their answer. The Japanese competitor announced a 20 percent price cut for exports of this product to the American market. If you were the American competitor with a large market share, how would knowledge of this trade secret change your likely response? In this case, the American company wisely chose to “adapt” rather than “defend.”

Although the information disclosures discussed here are the most common, they are hardly comprehensive. Almost every public decision a company

makes will be gleaned for information by astute competitors.<sup>15</sup> Consequently, companies in price-competitive industries should take steps to manage how their moves are seen by competitors, just as they manage the perceptions of stockholders and securities analysts. For example, will competitors in a highly price-competitive industry interpret closure of a plant as a sign of financial weakness or as a sign that the company is taking steps to end an industry-wide overcapacity problem? How they interpret such a move will probably affect how they react to it. It is in the company's interest to supply information that leads competitors to reach a more favorable interpretation. Think twice, however, before disseminating misleading information that competitors will ultimately discover is incorrect. You may gain in the short run, but you will undermine your ability to influence competitors' decisions and, therefore, to influence price competition in the long run.

### **WHEN SHOULD YOU COMPETE ON PRICE?**

We have been discussing the benefits of avoiding negative-sum competitive confrontation, but some companies have clearly built successful strategies for profitable growth based primarily on winning share by undercutting the prices of their competitors. Did not Walmart become the largest, while still very profitable retailer, in America, and did not Ryanair become the largest and most profitable airline in Europe, primarily based upon the promise of lower prices? Yes, and understanding the special circumstances that enabled them to grow profitably despite offering lower prices is necessary for anyone trying to replicate such success. Every company that succeeds in growing profitably with a low-price strategy must first create a business model that enables it to cut incremental costs below those of its competitors. Walmart did so by creating an efficient distribution network and managing inventory more efficiently than its competitors. Ryanair did so by, among other things, building a non-union workforce and flying planes to underutilized airports. So long as each could attract customers with a price difference smaller than its cost advantage, it could win customers without reducing industry profitability. Or, to put it another way, when Walmart or Ryanair won a customer from a competitor, it was not a negative-sum game. In fact, by serving customers more cost-effectively, these companies actually earned profits from each customer above those earned by their higher-priced competition—making their competitive efforts a positive-sum game.

However, a competitive cost advantage was not by itself enough to win market share profitably. All of these companies must also orchestrate a campaign of information to convince their competitors that their cost advantages are decisive. Eventually, even companies that grow through price competition usually recognize that unless they can continue to grow faster than competitors, price cutting cannot be a profitable growth strategy indefinitely. Consequently, they ultimately shift their strategies toward adding more value in ways that enable them to sustain their large market shares without having to sustain such a large price advantage indefinitely.

Under what conditions are the rewards from aggressive pricing large enough to justify a low price growth strategy? There are only four:

1. If a company enjoys a substantial incremental cost advantage or can achieve one with a low-price strategy, its competitors may be unable to

match its price cuts. Walmart, Dell, and Ryanair created low-cost business models that enabled them to grow profitably using price. In some markets, there may be an “experience effect” that justifies aggressive pricing based on the promise of lower costs. By pricing low and accumulating volume faster than competitors, a firm reduces its costs below those of competitors, thus creating a competitive advantage through low pricing. We, however, are skeptical that such effects exist in any but a few high-technology markets.

2. If a company’s product offering is attractive to only a small share of the market served by competitors, it may rightly assume that competitors will be unwilling to respond to the threat. The key to such a strategy, however, is to remain focused. Enterprise Rent-A-Car initially managed to grow quite large before any major competitor responded to its growth because Enterprise stuck to serving off-airport customers. By the time it challenged the market leaders for the more lucrative on-airport business, it had already achieved a scale of operations that enabled it to be cost-competitive.
3. If a company can effectively subsidize losses in one market because of the profits it can generate selling complementary products, it may be able to establish a price differential that competitors will be unable to close. For example, after its launch in 1995, Amazon’s rationale for its low pricing on books was to build up a body of loyal customers to which it could sell a broad range of other products—which now comprise a much larger share of revenue than its sales of books. More recently, Amazon has offered discounts on its Prime membership fee to build up viewership for its new content offerings like “Grand Tour”—as well as increase the installed base of consumers interested in purchasing from its vast assortment of other products and content.
4. Sometimes price competition expands a market sufficiently that, despite lower margins and competitors’ refusals to allow another company to undercut them, industry profitability can still increase. Managers who take this course are assuming that they have insight that their competitors lack and are, in effect, leading the industry toward pricing that is, in fact, in their best interest.

Before embarking on a price-based strategy, ask which of these four points describes your rationale and recognize that a growth strategy can rarely be built on price alone or sustained indefinitely.

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## Summary

No other weapon in a marketer’s arsenal can boost sales more quickly or effectively than price. Price discounting—whether explicit or disguised with rebates, coupons, or generous terms—is usually a sure way to enhance immediate profitability. However, gaining sales with price is consistent with long-term profitability only when managed as part of a marketing strategy for achieving, exploiting, or sustaining a longer-term

competitive advantage. No price cut should ever be initiated simply to make the next sale or to meet some short-term sales objective without being balanced against the likely reactions of competitors and customers. The key to profitable pricing is building and sustaining competitive advantage. There are times when price cutting is consistent with building advantage, but it is never an appropriate substitute for it.



## Notes

1. Sun Tzu, *The Art of War*, Chapter IV, "Disposition of the Army," 5th century B.C.
2. For more on the practical applications of game theory, see Adam Brandenburger and Barry Nalebuff, *Competition* (New York: Doubleday, 1996); Rita Koseika, "Evolutionary Economics: Nice Guys Don't Finish Last," *Fortune*, October 11, 1993, pp. 110–114; and Kenichi Ohmae, "Getting Back to Strategy," *Harvard Business Review* (November–December 1988), pp. 149–156.
3. B.H. Liddell Hart, *Strategy* (New York: Meridian, 1967), p. 322.
4. Gordon Kristopher, "Crude Oil's Total Cost of Production Impacts Major Oil Producers," *Market Realist*, January 13, 2016.
5. Michael E. Porter, "What Is Strategy?" *Harvard Business Review* (November–December 1996), pp. 60–78. See also Michael E. Porter, *Competitive Strategy* (New York: The Free Press, 1980), p. 34.
6. Porter, op. cit., pp. 41–43. A firm can become large without getting "stuck in the middle" simply by taking on multiple segments. The segments must be managed, however, as a conglomerate of focused businesses rather than as a one-size-fits-all marketing organization. Procter & Gamble is an excellent example of a large company that nevertheless carefully targets each product to meet the needs of a particular focused segment.
7. Ellen Byron, "Tide Turns 'Basic' for P&G in Slump," *Wall Street Journal*, August 6, 2009.
8. Akshay R. Rao, Mark E. Bergen, and Scott Davis, "How to Fight a Price War," *Harvard Business Review* (March–April 2000), pp. 107–116.
9. See the discussion on predatory pricing in Chapter 12.
10. "As Alliances Fade, Computer Firms Toss Out Playbook," *Wall Street Journal*, October 15, 2002, p. A1; "Dude, You're Getting a Printer; Dell's Printer Business Is Puny Next to HP's, But It's Quickly Gaining Ground," *Business Week Online*, April 19, 2004, p. 12.
11. Note that this principle applies in the other direction as well. If competitors quickly follow price increases, the cost of leading such increases is vastly reduced. Consequently, companies that wish to encourage responsible leadership by other firms would do well to follow their moves quickly, whether up or down.
12. See Francine Schwadel, "Ferocious Competition Tests the Pricing Skills of a Retail Manager," *Wall Street Journal*, December 11, 1989, p. 1.
13. Another useful tactic that can control such duplicitous behavior in U.S. markets is to require the customer, in order to get the lower price, to initial a clause on the order form that states the customer understands this is "a discriminatorily low price offered solely to meet the price offered by a competitor." Since falsely soliciting a discriminatorily low price is a Robinson–Patman Act violation, the purchasing agent is discouraged from using leverage unless he or she actually has it.
14. For more guidance on collecting competitive information, see "These Guys Aren't Spooks, They're Competitive Analysts," *Business Week*, October 14, 1991, p. 97; and Leonard M. Fuld, *Competitor Intelligence: How to Get It—How to Use It* (New York: Wiley & Sons, 1985).
15. For a comprehensive and insightful survey of the research on communicating competitive information, see Oliver P. Heil and Arlen W. Langvardt, "The Interface Between Competitive Market Signaling and Antitrust Law," *Journal of Marketing* 58(3) (July 1994), pp. 81–96.

## Measurement of Price Sensitivity Research Techniques to Supplement Judgment

*Look into nature, and then you will understand it better.*

Albert Einstein<sup>1</sup>

Quantitative estimates of customer price sensitivity and willingness-to-pay can substantially improve both price setting and price segmentation. Indeed, some estimate of price sensitivity, whether it be quantitative or qualitative, is required for the price-setting process described in Chapter 6. Sometimes research can provide very specific estimates of the impact of prices on sales volume. Other times estimates provide only a rough indication of a customer's willingness-to-pay given a set of circumstances. At their worst, estimates of price sensitivity fail to reflect the real nature of the buying decision, misleading management to make ineffective pricing decisions. This is often the case when a research design causes respondents to pay much more attention to price than real customers would.

In almost all cases, it is possible to develop an estimate of price sensitivity. The key to using the estimate effectively is to recognize that even a precise estimate is not necessarily accurate or unbiased. It is only an approximation of the actual value of a customer's price sensitivity. We always need to consider how differences between a real purchase situation in the future and an experiment in the present or past can change the impact of price on a customer's choice. There are numerous procedures for measuring and estimating price sensitivity. Each procedure offers particular advantages in terms of accuracy, cost, and applicability, so the choice is not arbitrary. One must think carefully about the appropriate procedure for any particular product before beginning research. In no case should a manager use a technique just because it is cheap, convenient, or fast. Instead, managers need to carefully assess their needs and adopt techniques that are most appropriate

for their situation. Even if the cost for those techniques is high, the benefit is often sufficiently large to justify the expense.

### TYPES OF MEASUREMENT PROCEDURES

Procedures for estimating price sensitivity differ on two major dimensions: The conditions of measurement and the variable being measured. Exhibit 8-1 classifies the various procedures according to these two dimensions. The conditions of measurement range from a completely uncontrolled to a highly controlled research environment. When making uncontrolled measurements, researchers are only observers. They measure what people actually do, or say they would do, in a situation not of the researcher’s making. For example, marketing researchers might collect data on consumer purchases of laundry detergent in a grocery store, but the prices and other variables that influence those purchases are beyond their control. This is often the case when analyzing historical sales data.

In contrast, when making controlled measurements, researchers manipulate the important variables that influence consumer behavior to more precisely observe their effect. Researchers conducting a controlled study of price sensitivity for a laundry detergent could select the prices as well as the advertising and shelf placement of various brands in order to make the data more useful. They might attempt to gain even more control by conducting a laboratory experiment in a simulated store, carefully selecting the individuals whose purchases would be recorded. Participants for the experiment could be chosen to represent various demographic variables (such as geographic location, gender, income, and family size) in proportions equal to those of the product’s actual market or to represent a particular group (such as mothers with children) to whom the product was intended to appeal. Generally, controlled research produces more accurate estimates of the effects of the controlled variables on price sensitivity, but depending on the level of realism, it is often costly to implement in a real-world setting. A laboratory setting is often used to better control other factors that may affect price sensitivity as well as to reduce costs, but these improvements come at the expense of realism.

**EXHIBIT 8-1** Techniques for Measuring Price Sensitivity

Variable Measured	Conditions of Measurement	
	Uncontrolled	Experimentally Controlled
<b>Actual Purchases</b>	<ul style="list-style-type: none"> <li>• Historical sales data</li> <li>• Panel data</li> <li>• Store scanner data</li> </ul>	<ul style="list-style-type: none"> <li>• In-store experiments</li> <li>• Laboratory purchase experiments</li> </ul>
<b>Preferences and Intentions</b>	<ul style="list-style-type: none"> <li>• Direct questioning</li> <li>• Buy-response survey</li> <li>• In-depth interview</li> </ul>	<ul style="list-style-type: none"> <li>• Simulated purchase experiments</li> <li>• Trade-off (conjoint) analysis</li> </ul>

The dependent variable for estimating price sensitivity is either actual purchases or purchase preferences and intentions. Actual-purchase studies measure behavior, whereas preference-intention studies measure the intended choices that people claim they would make in a hypothetical purchase situation. Since the ultimate goal of the research is to estimate how people respond to price changes in actual purchase situations, research that measures actual behavior is generally more desirable, but it is also more costly, time-consuming, and sometimes impractical, given the need to move products to market quickly. The following discussion summarizes these research techniques and some of the trade-offs of choosing one method over another.

### **Uncontrolled Studies of Actual Purchases**

One way to estimate price sensitivity is to analyze past sales data. Naturally, one would expect this to work well in assessing the price sensitivity of customers for existing products in which consumers have prior-use experience. Given the increased use of scanners in supermarkets and mass merchandisers, databases maintained by hotels and airlines on their most frequent customers, and user profiles by online sellers, analysis of historical pricing and sales data has become an important source of information to evaluate customer response to pricing, promotions and other marketing activities. Still, changes in (i) the number of brands on the market, (ii) how recently competitors offered price promotions, (iii) the amount and effectiveness of advertising by each brand, (iv) increased price sensitivity of more-educated consumers, and (v) general economic conditions can undermine the ability of historical data analysis to diagnose the true effects of a price change.

There are three types of past sales data from which a marketing researcher might attempt to estimate price sensitivity: (i) Historical sales data—sales reports from a company's own records or from a sales-monitoring service; (ii) panel data—individual purchase reports from members of a consumer panel; and (iii) store scanner data—sales data for an individual retail outlet.

### **Historical Sales Data**

Sales data collected as part of a company's regular operation are cheap and available for all products that have prior sales histories. Given the ability to actually track data on a daily or even real-time basis, marketers are able to analyze trends and project future movement of product sales. One needs to be careful in recognizing that sales data only allow for the estimation of price elasticity of the next level in the channel. For example, in a retail environment, unless a manufacturer sells directly to the end-user, its sales data reflect shipments to retailers, not actual retail sales during the period. Retailers may stockpile products purchased at promotional prices with no intention of passing the savings on to the consumer, or in anticipation of increases in demand on the part of consumers in a later period. Understanding this, some marketers at manufacturers have direct links with the inventory movement of their retail outlets, combined with up-to-date retail price data. While this is generally part of a manufacturer's inventory-management system to facilitate timely replacement of stock, it also provides the marketer with instant data that can be analyzed for important trends in demand.

In the past, using historical data for any product not sold directly to the end consumer was problematic. Sales data was usually available only at an aggregated level for a long period of time—say, a week. In any given week, some stores will charge higher prices than others. Over time, the same store will put the product on sale for a week and then return its price to the regular level. These price variations influenced sales, but were masked by the aggregation.

Unfortunately, data that aggregate sales for all stores over a number of weeks conceal these individual price differences. Given the aggregation in the data, the researcher is forced to explain sales variations by looking at only the average retail price across stores and throughout the time period. Since average prices have less variation and fewer observations than actual prices at individual stores in particular weeks, the data have less statistical power than data on individual purchase prices. In addition, some stores serve segments that are substantially more price responsive than others; for example, a drug store located in a posh downtown area is often frequented by consumers who are less price sensitive than those who might shop at a suburban location of the same retailer. As a result, aggregated sales data can mask these differences and will lead to price elasticity estimates that may, on average, be correct, but do not really apply to any single store setting.

Now, however, nearly all retailers track their sales and most sell their data to manufacturers (often via third party data aggregators). Since sales can be observed within short time-frames, and loyalty cards can enable tracking changes in an individual shopper's behavior over time, researchers today have more tools, and more data than ever before to readily track the impact of regular and promotional price differences.

### **Panel Data**

A number of marketing research companies collect individual purchase data from panels of a few thousand households. Each household keeps a daily record of all brands purchased and prices paid, or uses a special credit card that tracks purchases. Since products are purchased daily, the data for each household must be aggregated to produce a series on weekly or bi-weekly purchases. Such data have a number of advantages:

1. One can accumulate observations more quickly with weekly panel data than with bimonthly or quarterly sales data, reducing the problem that other factors may change and reduce the comparability of the data.
2. One can observe the actual price paid, rather than an average of the retail prices that different stores charge, and one can identify sales that were made with coupons or promotions that alter the price actually paid.<sup>2</sup> This captures more price variation in the data, making the effects of price changes easier to detect.
3. One can get data on the sales and prices of competing products (provided someone in the panel bought them), as well as on the sales of one's own product.
4. One can correlate price sensitivity with various demographic classifications of consumers and possibly identify opportunities for segmentation.<sup>3</sup>

One potential drawback is that panel data may not be adequately representative of the market as a whole. Of all households invited to join a panel, fewer than 5 percent accept the offer and accurately record their purchases. There is reason to suspect, therefore, that panel members are a biased sample of the population. Moreover, the fact that panel members must record their purchases tends to make them more price aware, and thus more price sensitive. This problem increases the longer a household participates in a panel. Fortunately, technological advances have enabled research companies to develop panels that do not require consumers to record most of their purchases.<sup>4</sup> Instead, in-store scanners record purchases automatically whenever panel members identify themselves in the store's checkout line. This vastly simplifies panel membership, increasing the panel participation rate to more than 70 percent and attenuating the problem of heightened price awareness. Further, the data tend to be more representative of real purchasing behavior of consumers without the bias that has been problematic in the past.

A second potential drawback to panel data is that typically only one member of the household agrees to participate in the panel, yet in most households multiple people perform shopping duties. As a result, it is easy to miss purchase data from the non-participating member(s) of the household, who often have very different criteria for making purchase decisions. For example, if the non-participating family member joins a discount warehouse club and purchases cereal by the bushel, the family is essentially out of the cereal market for a while, no matter how substantial a discount is offered to the participating panel member.

Even with these caveats, panel data remains valuable. Given the ever-widening use of scanners and the ability to link scanner data with panel data, increasing numbers of consumer products can be analyzed using this type of analysis. The superiority of panel data estimates over those from aggregate sales data is due to the availability of more observations from a shorter and more comparable time period. With the availability of advertising and other promotional data, researchers are able to estimate price sensitivities for different customer groups with a reasonable degree of reliability (see "Using Panel Data to Measure the Impact of Promotion on Choice" below). Since multiple companies share the cost of the same ongoing research, estimates based on panel data are also less expensive than estimates based on an equal number of observations from proprietary research.

### **Using Panel Data to Measure the Impact of Promotion on Choice**

As an example of how panel data can be used, consider a study where the authors asked two important questions: Whether consumers are getting more price sensitive and whether the group of price-sensitive consumers is growing. To evaluate these and other questions, the authors examined more than eight years of usage data from a panel of consumers and were able to compare those data with quarterly advertising data from manufacturers of non-food household products. They were able to evaluate three different types of price promotions: Temporary price reduction, price feature of the product, and the offering of a coupon. A multinomial logit

**EXHIBIT 8-2 Regression Analysis Results**

Consumer's Sensitivities to:	Average Price Sensitivities	Sensitivity Changes Over Time
1. Loyal segment		
Price	-0.28	Increase
Price promotion	0.02	Increase
Non-price promotion	0.03	Decrease*
2. Non-loyal segment		
Price	-1.70	Increase
Price promotion	0.04	Increase
Non-price promotion	0.09	Decrease*
Non-loyal segment size		Increase*

\*Indicates significant at  $p < 0.05$ , all else  $p < 0.001$ .

model was used to evaluate the impact of the promotional (price and non-price) activities on the consumer's choice of a product. Further, they were able to segment users into loyal and non-loyal segments and compare the price sensitivities of the two groups. The summarized results are shown in Exhibit 8-2.

Price sensitivities shown are averaged across all of the periods analyzed. Based on the elasticities, the loyal segment showed little price sensitivity, but it did increase over time. The non-loyal, price-oriented segment showed higher price sensitivities that increased over time as well. The study authors did note that the size of the non-loyal segment increased over time, indicating that "an increasing proportion of consumers have become more price and promotion sensitive over time."

Source: Carl F. Mela, Sunil Gupta, and Donald R. Lehmann, "The Long-Term Impact of Promotion and Advertising on Consumer Brand Choice," *Journal of Marketing Research* 34 (May 1997), pp. 248-261.

### Store-Level Transaction Data

An alternate source of actual sales comes from auditing price transactions and sales at individual retail stores. Modern point-of-sale technologies have made accurate daily sales and price data available at reasonable cost. Retailers, both online and bricks-and-mortar, generate such data as part of their normal operations. The high frequency of transaction-level data makes it vastly superior to aggregate sales data, providing marketers with almost immediate information on the movement of their product. Although transaction data alone lacks the balanced and complete demographics of consumer panel data, mechanisms such as loyalty cards and online profiles allow many transactions to be connected to specific consumers to study differences across consumer segments and to track changes in purchase behavior over time.

Transaction data generally also costs less than panel data. When store scanner data can be combined with panel data that track the demographic and broader behavioral characteristics of consumers, researchers often get

huge insights into shoppers' price sensitivity and purchasing behaviors. Transaction data are a major source of information on the price sensitivity of consumer-packaged goods.<sup>5</sup>

While transactional sales data—in the form of panels, purchase histories, and scanner data—are quite prevalent in the consumer-packaged goods industry, in many business-to-business markets there are simply too few transactions and insufficient market oversight to develop similar data sets. However, not all is lost. We recently spoke with a company that created a competitive sales database. This company, a tractor manufacturer, created an internal database in which its sales force would register any competitive bid information. Over time the company built a database of competitive price information which, combined with the record of its own bid outcome history, allows the firm to estimate the price sensitivity of customers, by segment if necessary, as well as to estimate the incremental value its tractors offered over the competition. The total investment for creating this competitive intelligence capability was on the order of \$50,000—a small sum for this multi-billion dollar company.

In this case, there is some level of bias in the data that one needs to be aware of—the competitive quotes are being obtained from customers who have an incentive to provide lower-than-actual prices. One thus needs to adjust the distribution to reflect the bias; if one can confirm actual quotes for a sample of transactions, then it is possible to estimate the actual level of bias. One also needs to be careful to normalize competitive quotes so that equivalent comparisons are being made. Are after-sales services, special financing terms, or training included, for example? Companies such as Gigwalk have cultivated a cloud-based workforce that can rapidly execute a range of tasks such as gathering in-store prices across the country, sourcing competitive price information, completing short surveys, and gathering other market insights.<sup>6</sup>

Further, when the quote history is overlaid with actual sales success data, it is possible to estimate the likelihood of achieving a sale at any given price level. It also is possible to estimate the decline in the probability of a sale as price increases—a form of estimating price sensitivity as well as a way to estimate the amount of money left on the table in successful bids.

Finally, as firms update their pricing capabilities, many are discovering new opportunities to study responses to pricing actions. For example, as companies invest in technologies that allow for rapid and frequent price changes, they can look to yield management techniques that allow for the study of demand changes in response to pricing actions. Motel 6 for example, has the ability to post prices electronically on its billboards and can change these prices—at nearly no cost—by the hour. In only a short span of time, this company can study the price responsiveness of its customers by location, by day of week, and even by time of day. As companies add to their ability to set and manage prices, new opportunities will become available to create “natural experiments” to allow for the study of price reactions at relatively low cost.

### **Analyzing Historical Data**

Analysis of historical sales data often involves application of multivariate regression analysis. This statistical technique attempts to show how much of the historical variation in a product's sales can be explained by each of the explanatory variables, including price, that the researcher includes in the



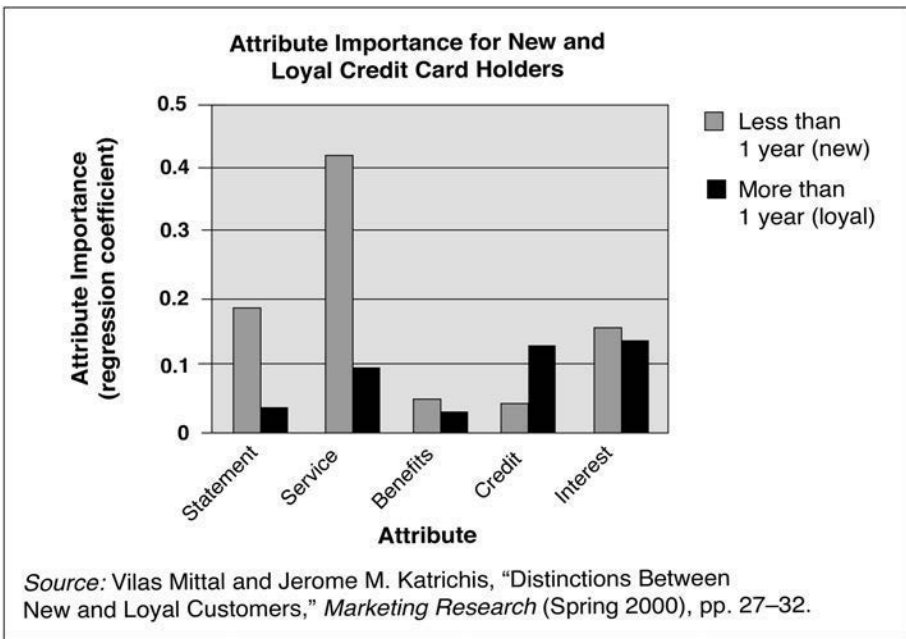
analysis. One should not expect, however, that the researcher will necessarily succeed in identifying the effect of price with such an analysis. For example, if there has been little historical variation in a product's price, then no statistical technique applied to its sales data can reveal the effect of price changes. Another common challenge in pricing analytics is the effect of multi-collinearity: If another variable—such as advertising—is always changed along with price, perhaps to advertise a price discount, it is very difficult to disentangle the impact of the price discount from the promotion. Fortunately, there are many sophisticated multivariate techniques available to help with such situations; a detailed discussion is beyond the scope of this book. We recommend the reader interested in advanced modeling techniques to consult a good econometrics textbook.<sup>7</sup>

In any case, one must be careful to recognize the limits of a successful analysis of historical data. To estimate any equation, the researcher must develop a mathematical form for the relationship between price and sales, taking into account other inputs that may affect the buying decision such as competitive prices, consumer confidence, weather patterns, among other factors. To the extent that the assumed form incorrectly specifies the relationship, estimates of price sensitivity may be misleading. Moreover, the researcher's estimate of price sensitivity is valid only over the range of price and other input levels used to estimate the relationship. There is no reason to believe that the same relationship would necessarily apply to price changes outside that range. One also needs to be careful to look at the size of the corresponding error terms in the model to understand its quality and accuracy.

Finally, regardless of how well an estimated equation fits past data, its value in predicting the effect of future price changes rests on the assumption that the future is like the past. The more other factors change, the less the past can predict the future. Despite these limitations, if a researcher has a lot of historical data with enough price variation in it, useful estimates of price sensitivity are possible.<sup>8</sup> For multiproduct companies, an understanding of price responsiveness can be used to help optimize demand flow across a product line. Specifically, prices can be adjusted to direct demand to specific products to better manage inventories, obtain better leverage with suppliers, and yet at the same time allow a wide product selection for customers who require specific items.

Exhibit 8-3 shows the results of research that utilized regression analysis to evaluate the relative importance of interest rates (a form of credit-card pricing) relative to other product attributes among two groups of credit-card holders: Those who are loyal (more than one year of ownership) and those who are new (less than one year). The categorization of customers as new or loyal was based on input from the managers of the credit-card company, who found that people who used their card for at least one year tended to stay users for an extended period of time. Of interest is the marginal increase in price sensitivity as measured by sensitivity to interest rates, for non-loyal customers (attribute importance of 0.16 compared to 0.14 for loyal customers) and the very large difference in need for service. As is the case in many product categories, the relative importance of price—and other elements of the offer—can vary significantly over time and across customer segments. Understanding where these differences reside usually leads to more precise targeting of offers and key messages in order to drive sales more cost-effectively.

## EXHIBIT 8-3 Use of Regression Analysis



## EXPERIMENTALLY CONTROLLED STUDIES OF ACTUAL PURCHASES

A researcher might attempt to estimate price sensitivity by generating experimental purchase data. Such data may come from pricing experiments conducted in a store without the buyers' knowledge or from pricing experiments conducted in a laboratory. Since the researcher controls the experiment, price variations can be created as desired to generate results while holding constant other marketing variables, such as advertising levels, in-store displays, or competitive prices which often change with price variations in uncontrolled sales data.

With this method, the researcher can examine the effect of a number of different prices quickly and either (i) exclude many unwanted external effects in the laboratory experiment or (ii) establish a control for the in-store experiment that will take account of them. Moreover, all this can be done while still providing buyers with purchase decisions that are comparable to those they make under normal conditions. As a result, to the degree that the experimental setting reflects the actual purchase environment, experimental research provides fairly reliable estimates of price sensitivity.

### In-Store Purchase Experiments

An in-store purchase experiment relies on actual purchase data collected when buyers are unaware that they are participating in an experiment. Although the term "in-store" reflects the fact that most such experiments are conducted in stores, the principles of in-store experimentation are equally applicable to

any natural purchase environment. Such experiments are often easier to conduct for products sold through more controlled direct-retail methods, such as online sites, where a user's web browser cookie history can be used to determine the offer to deliver and to track response. For example, the researcher can select a subset of registered users to receive offers with experimental prices that differ from those in the regular website. Even in direct sales to business, one can sometimes select a representative sample of customers. When, for example, Quaker Oats conducted an in-store experiment that focused on the effect of price alone, the study required 120 stores and ran for three months to provide enough data to create accurate market insights. Such studies can easily cost several million dollars.<sup>9</sup>

In addition to the financial and time cost of in-store experiments, there are other drawbacks. There is the potential loss of consumer goodwill when some buyers are charged higher prices than others. On the other hand, charging prices below normal can become too costly when the product is a large-expenditure durable such as a car or a piece of industrial equipment. An in-store test also involves the very real risk of being discovered by a competitor. If the product is new, a company may not wish to give its competitors an advance look. Moreover, when competitors find out about a test market, they may take steps, such as special promotions or advertising in selected areas, to contaminate the results.<sup>10</sup> Thus, although in-store experiments have the potential for yielding very high-quality estimates, market researchers are more often forced to use alternatives. The closest of those alternatives is a laboratory purchase experiment.

### **Laboratory Purchase Experiments**

Laboratory purchase experiments attempt to duplicate the realism of in-store experimentation without the high cost or the possible exposure to competitors. A typical laboratory experiment takes place in a research facility at a shopping mall. Interviewers intercept potential participants who are walking by and screen them to select only those who are users of the product category being researched. Based on information from a short pre-test questionnaire, the researchers can control the proportion of participants in each demographic classification (for example, gender, age, race, income, or family size) to ensure that the experimental population is representative of the actual population of buyers, a technique known as proportionate sampling. If members of some demographic categories cannot be found in adequate numbers in the mall, telephone interviews may be used to contact such people and offer them an incentive to come and participate in the experiment.

The laboratory researcher can control who participates and can quickly manipulate prices and other elements in the purchase environment (such as shelf location and point-of-purchase displays), all at a single location. Moreover, the researcher can almost entirely eliminate external factors, such as changes in competitors' prices, stock-outs of competing products, or differences among stores that may contaminate the results of an in-store test. Participants exposed to different prices see exactly the same display at the same location in the laboratory experiment. Even effects associated with the time of day can be controlled by constantly changing prices for each new participant in the experiment. Thus, if testing three different price levels, approximately

one-third of the consumers who take the test at any hour can be exposed to each price level. This ability to control the experiment so closely enables the researcher to draw inferences from far fewer purchases in much less time than would be possible with an in-store experiment.

Laboratory research facilities vary greatly depending on the sophistication of the research organization and the budget of the client company. The simplest facilities may consist of an interviewing room with a display of products from a single product category. The price for each brand is clearly marked, and the participant is invited to make a purchase. In theory, since the consumer is actually making a purchase, or can choose not to buy at all, the purchase decision in a simple laboratory experiment is the same one that the consumer would make shopping in an actual retail store. In practice, however, that conclusion may not be true. The problem lies in the artificiality of a simple laboratory environment. First, a single display in a laboratory encourages the consumer to give the purchase decision much more attention than would be typical in an actual shopping situation. Research indicates that most consumers are not entirely aware of price levels in a store, nor are they acutely aware of the magnitude of price changes.<sup>11</sup> In a laboratory, however, consumers do not want to appear careless. They are, therefore, much more likely to note and respond to price differences. Second, when consumers know they are being watched from behind two-way mirrors, they may act “as they think they should” rather than as they would in real life. Thus some consumers may buy the low-priced brand just to appear to be smart shoppers, or the high-priced brand so as not to appear stingy. They may also buy something from the category out of a feeling of obligation to the researcher who gave them the money, even though they would not buy from that category in a store.

To overcome these limitations, a few research companies offer highly sophisticated laboratory research facilities. The most elaborate facilities attempt to duplicate as closely as possible the actual conditions under which consumers buy the product. These facilities contain complete simulated stores the size of small convenience stores. Before entering the simulated store, consumers may view reruns of television programs that have embedded television commercials for the research product, or they may read magazines that contain print advertisements for the product. When consumers finally enter the store, they are invited to do all their shopping, purchasing whatever they want, just as they would on a regular shopping trip.

The cost of even the most sophisticated laboratory experiment is only a small fraction of the cost of in-store testing. As a result, the leading marketers of consumer packaged goods and small appliances rely extensively on this research technique when making pricing decisions.<sup>12</sup> In the past decade, the number and frequency of laboratory purchase experiments for products sold online has boomed. The cost to design a realistic purchase environment, to control the promotional message, and to recruit respondents online is so low that it is possible to test more frequently, to get answers faster, and to employ much larger samples than marketers would usually have considered. Companies that design this type of research can solicit participants via pop-up ads on targeted websites. To reach buyers in very “thin” markets, such as purchasers of industrial equipment or adventure vacations, marketers can buy specialized panel data from research vendors to solicit participants. Consequently, a realistic internet purchase experiment can take as little as a week and cost

one-tenth what similar research would cost in another purchase environment. The story below, “Measuring Price Sensitivity for e-Books,” describes a laboratory experiment for a company considering entry into an existing online marketplace.

### Measuring Price Sensitivity for e-Books

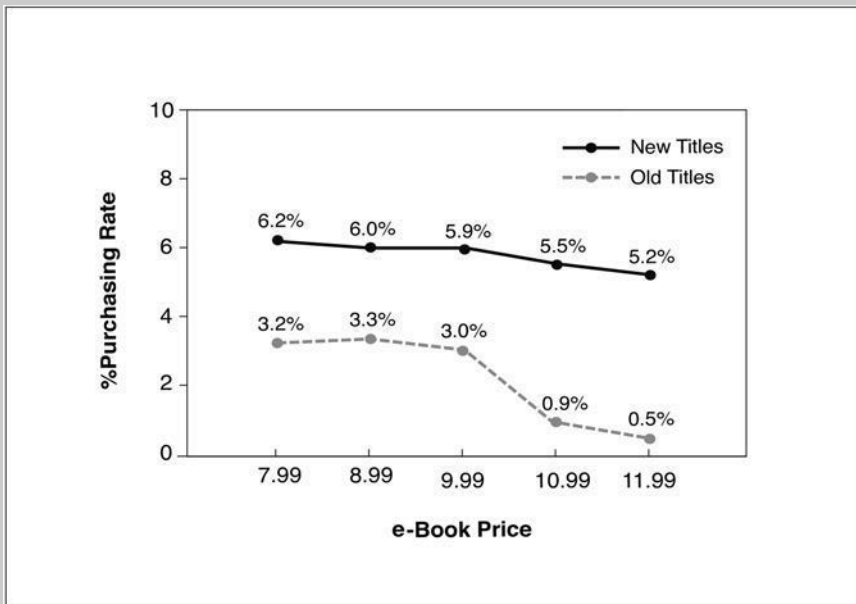
An online retailer wanted to test its ability to price some popular electronic book titles above the established level of \$9.99 or less per download. If proven successful, the retailer felt that publishers would become less resistant to publishing their latest and best titles digitally. The retailer hoped to understand whether its customers would accept a segmented pricing model with higher prices for new, bestseller titles—particularly since bookstores generally price hard copies of newly released titles as loss leaders to draw store traffic. Such a model might use a lower e-book price for older titles that had migrated to paperback while continuing to price e-book titles that are still in hardback at higher prices.

The company engaged a research firm to design an online laboratory experiment, recruit 2,000 respondents, and analyze the results. To protect its reputation, the online laboratory store was given a fictitious name. The goal of the experiment was to understand the extent to which higher prices would affect consumers’ e-book purchase behavior. The market research company spent one-and-a-half weeks designing the experiment and recruiting respondents from email lists of electronic book purchasers. Respondents participating in the experiment were first asked their genre preferences, following which they were presented with several e-book options in each of their preferred genres. The e-books varied in price and time since publication. Some e-books were given prices above the standard \$9.99 and some were priced at or below \$9.99. The experiment was designed to replicate, as closely as possible, the experience a consumer would have purchasing a book online. Respondents were asked to add e-books to their shopping basket as if they were actually shopping on a website and they could monitor how much they had in their shopping cart. At the end of the experiment, respondents were presented with their total order and cost and given the opportunity to remove items from their shopping basket before confirming their order.

Only one-and-a-half weeks after the launch online, more than 2,000 respondents had completed the experiment through confirming a purchase. After another week, the research company had completed its analysis of price sensitivity by demographic, type of book, and various other segmentations.

Exhibit 8-4 shows the answer to the retailer’s main research question. The online experiment demonstrated that e-book demand is relatively price inelastic for prices below \$9.99 but very elastic for prices above \$9.99 for titles generally available anywhere. However, respondents did show a willingness to purchase new titles, not generally available in paperback or in e-book format, at prices above \$9.99. The experiment proved very insightful for the online book retailer. They learned that there was some upward flexibility

EXHIBIT 8-4 e-Books: Purchase Rate by Price



Source: Deloitte research. Although this description is based on an actual study, some details have been changed to maintain client confidentiality.

in their prices for newer books, but a downward adjustment for older books would not generate sufficient additional purchases to justify the drop in price. As a result of the experiment, the retailer decided to launch a segmented pricing model, offering publishers the chance to earn higher profits on e-book sales if they authorized them along with the hardback edition.

## UNCONTROLLED STUDIES OF PREFERENCES AND INTENTIONS

The most common research technique for directly estimating price sensitivity is the survey of brand preferences or purchase intentions. Companies prefer to measure preferences or intentions, rather than actual purchases, for a number of reasons:

1. Survey data costs much less to collect than purchase data.
2. Survey data can be measured for large, infrequently purchased, durable goods, such as automobiles or smartphones, for which in-store or laboratory experiments at various prices are impractical.
3. Survey data can be collected even before a product is designed, when the information is most valuable in directing product development.
4. The results can be collected quickly.

Unfortunately, the problem with survey research is that many consumers do not provide answers that are a reliable guide to their actual purchase behavior.

The reasons are varied, but one of the main issues is that surveys require a level of abstraction that the respondent may or may not be able to perform. This is especially true of new products that are wholly unfamiliar or whose application is not readily apparent. As a result, determination of value delivered, or willingness-to-pay, is difficult to arrive at even for a committed respondent. In order to solve this problem, some research companies cross-validate the results of one survey with the results of another, often using slightly different methods of data collection and questioning. For example, a firm might collect data using personal interviews and validate the results by telephoning a different group of respondents and asking the same set of questions. The closer the results are from the two samples and methods, the more valid and accurate the final results.

### **Direct Questioning**

Very early in the development of survey techniques for marketing, researchers learned that it was futile to ask consumers outright, “What is the most you would be willing to pay for this product?” Direct questioning sometimes elicits bargaining behavior, with consumers stating a lower price than they would actually pay. Other times, it elicits a desire to please the researcher, prompting consumers to state a higher price than they would actually pay. Frequently, it simply elicits a cursory answer that consumers would change were they to give the question the same thought as an actual purchase decision. Consequently, uncontrolled direct questioning as a research technique to estimate price sensitivity should never be accepted as a valid methodology. The results of such studies are at best useless and are potentially highly misleading.

### **Buy-Response Surveys**

A slight variant of the direct-question survey involves showing consumers a product at a preselected price and asking if they would purchase at that price. Surprisingly, although directly asking consumers what they would pay usually yields meaningless answers, asking them if they would buy at a preselected price yields answers that are at least plausible. When the answers given by different consumers for different price levels are aggregated, they produce what looks like a demand curve for market share, sometimes called a purchase probability curve. (For more on purchase probability curves, see “Purchase Probability Curves: A Simple Buy-Response Study,” below). Presumably, questioning willingness-to-buy generates better responses simply because it is structured more like an actual purchase decision than as an open-ended question about what the consumer would pay. Also, the consumer has no opportunity to bargain with the researcher.<sup>13</sup> Interestingly, there are a number of studies that have documented cultural differences that lead to large amounts of substantial and systematic variation in the accuracy of buy-response surveys across countries such as the United States, Germany, and Japan, among others.<sup>14</sup>

### **Attribute Rating**

Another method for evaluating price sensitivity is to include price as one of the attributes describing a product or a purchase situation. Consumers rate the importance of each attribute using a variety of scaling techniques. Those scales

can be a 1–5 or a 1–10 importance rating, or simply an evaluation of the percent of respondents mentioning the attribute as being important.<sup>15</sup> This approach is problematic because responses tend to be offhand and overly positive, due to halo effects, where respondents tend to not carefully discriminate among listed attributes and give similar ratings or responses to many attributes, especially those adjacent to each other.

### Purchase Probability Curves: A Simple Buy-Response Study—Opportunity for a Higher Price

A maker of software had developed an innovative financial management program that allowed consumers to both manage their finances as well as prepare their tax returns. To understand the impact of price on demand, the software company conducted a national study to assess how consumers would value the new technology and whether they would be willing to pay a premium. The research started with conducting in-home interviews of consumers (a research methodology known as ethnographic research) to understand how they thought about personal finances and how they managed them. An initial finding from the interviews was that consumers typically did not enjoy managing their finances for a host of reasons, including inevitable spousal tensions that arose when assessing household spending patterns. However, there was a general interest in tools that could make it easier to manage personal finances.

With a basic understanding of the key attributes that consumers evaluate—such as an intuitive user interface, ability to automatically download bank statements, and automated updating of new tax codes—an online survey of 1,800 consumers was conducted. Each respondent was allowed to evaluate a sample copy of the software and was then

EXHIBIT 8-5 Purchase Probability Curve for Financial Software

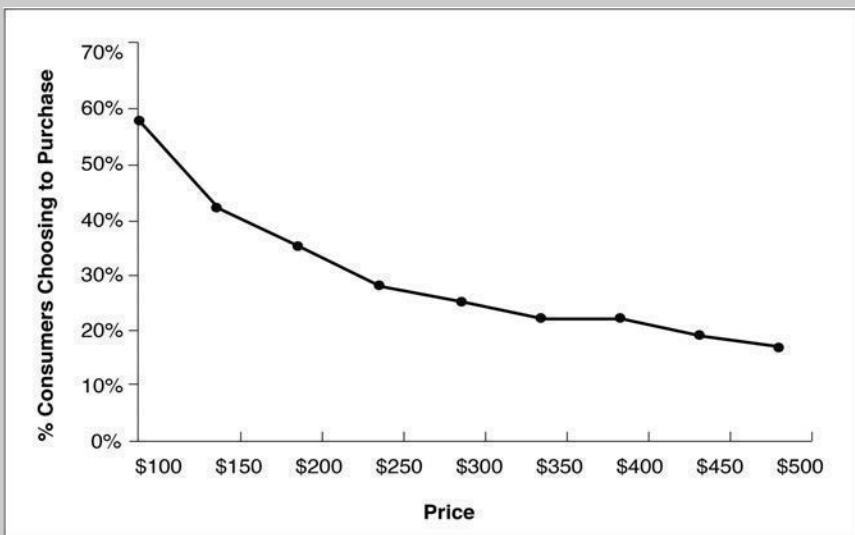
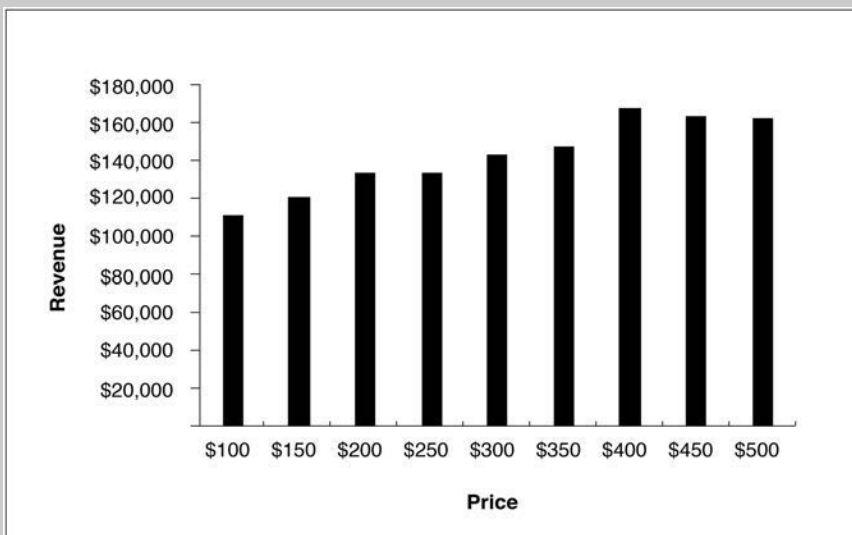




EXHIBIT 8-6 Total Revenue Estimate for Financial Software



Source: Deloitte study. The product category and price levels have been changed to protect client confidentiality.

asked the likelihood of purchase at prices that ranged from \$100 to \$500. The findings on purchase probability as a function of price are summarized in Exhibit 8-5. At \$100, 58 percent of the consumers indicated that they would purchase the product. As price rose to \$200, not surprisingly, fewer respondents were willing to buy. However for successive increases in price, the percent of respondents willing to buy did not change very much. While increasing the price from \$300 to \$500 made little difference in the proportion of consumers willing to buy the product, the study revealed a significant revenue opportunity by setting prices relatively high, as shown in Exhibit 8-6.

One cannot, however, treat buy-response data as directly comparable to or directly predictive of the sales that would actually occur at the corresponding prices in a store. Most problematic is the fact that consumers' answers depend on their recollection of the actual prices of competing products. To the extent that they overestimate or underestimate competing prices, they will misjudge their willingness-to-buy. Even with this form of the question, some consumers will still want to please the researcher, or will fear appearing stingy, and so will falsely claim a willingness-to-buy the brand over competing brands regardless of the price.

Nevertheless, such research is useful (i) as a preliminary study to identify a range of acceptable prices for a new product, and (ii) to identify changes in price sensitivity at different points in time or place, assuming that the biases that affect these studies remain the same and so do not affect the observed change. For example, buy-response surveys for low-involvement consumer packaged goods often reveal little difference in

consumers' willingness-to-buy at different prices before they try a new product, but a significant difference at different price points after they have tried it. In interpreting the study, one would not want to take the absolute percentage of consumers who claimed they would buy as an accurate prediction of the percentage of consumers who would actually buy at different prices. However, differences in the stated probability of purchase before and after trial may reliably predict the change in price sensitivity caused by the product trial.

Intention measurement is also sometimes used successfully to predict actual purchases when researchers have past experience that allows them to adjust for the bias in subjects' stated intentions. Typically, purchase intentions are measured by asking people to indicate which of the following best describes their likelihood of purchase:

- Definitely would buy
- Probably would buy
- Might/might not buy
- Probably would not buy
- Definitely would not buy

The leading survey research firms have asked such questions of millions of buyers for thousands of products. Consequently, they are able to develop adjustments that reflect the average bias in these answers for various product classes.

### **In-Depth Interviews**

An in-depth interview is a "semi-structured" method that is used to elicit responses from customers on how they use products and services, from which the research infers value rather than asking about value directly. The interview is often conducted one-on-one with a respondent and lasts for one to two hours. In a consumer environment, it is used to understand how individuals and families use products and how they might value different features or positioning approaches. In a business-to-business environment, the interviewers attempt to understand how businesses gain revenues or reduce costs by using a specific product or service. To do this successfully, one needs to have a deep understanding of the respondent's business. In-depth interviews in pricing research are useful in (i) understanding which product or service features and benefits are important to a customer, (ii) assessing the monetary or psychological value of these features and benefits that a customer receives as a result of using the product or service, and (iii) assessing roughly what a customer might be willing to pay to obtain these features and benefits. In-depth interviews are also used to develop economic-value models of how much a customer could gain in monetary terms from purchase of the product. The model then becomes part of a promotional campaign to increase customers' willingness-to-pay. Such models work well for business customers where most benefits can be translated into additional revenues or costs saved. It also works well in consumer markets where the benefit is a cost saving (for example, the value of buying a more efficient refrigerator), or where new usage opportunities may be uncovered.

Like a focus group, an in-depth interview is relatively unstructured and is usually conducted by an experienced interviewer who has a specific interview guide and objective, such as to quantify the value of differentiating features. In-depth interviews are used less frequently in market research due to the need for highly specialized interviewers, the relatively high expense per interview, and the small sample size.<sup>16</sup> This is especially true for consumer pricing research for mass-market products and services. However, for more complex business-to-business pricing research, the interviews—in terms of the quality of information obtained with regard to customer value and willingness-to-pay—often yield fruitful insights and analysis. For example, in business markets, in-depth interviews enable the interviewer to probe customer needs, customer experiences, how they attempt to deal with problems, how the supplier's products or services could solve these problems, and the value to the customer of the consequent savings or gains they would realize from using the firm's products or services.

In-depth interviews do not ask customers directly how much they would be willing to pay. Instead, the interview focuses on the financial benefits to the customer that a product or service could influence. It is also possible to get a sense of perceived value by identifying other items that the customer buys to achieve the same benefit. One method used successfully in business-to-business markets, called "evocative anchoring," asks respondents to identify items in their budget that they might consider a trade-off in order to obtain the value and benefits promised by a supplier's proposed product or service solution. For example, when helping a software client to price relationship-management software, one identified benefit was reduction in customer turnover. By asking potential buyers to identify the costs of acquiring new customers, it became possible to estimate the value of customer retention.

In-depth interviews enable marketers to understand not only what someone might perceive their product or service to be worth, but also why it is worth that much. The in-depth interview attempts to understand the needs that the product addresses and how the product or service addresses them. The process often uncovers ways that suppliers can enhance their current product or service offerings and, in doing so, provide the basis for creating more differentiated products that can be sold at higher prices. It also exposes who in the buying organization has goals that are likely to benefit from purchase of the product.<sup>17</sup>

The interview must be conducted outside the context of a selling opportunity or a negotiation, since customers are unlikely to reveal value at such times. However, the data garnered often form the basis of a value-based selling approach in which salespeople, armed with an understanding of how their products differ from those of competitors and how those differences create value for customers, can justify their pricing to the customer and to themselves. Companies often can use the information gained from in-depth interviews to develop "value case histories." These case histories describe the experience of a particular customer in using a firm's products and the specific value that the customer received. These case histories eventually become a sales support tool.<sup>18</sup>

The in-depth interview is an excellent method for developing a better understanding of how different product and service features create value for customers, especially customers in a business-to-business environment. It

is especially useful in moving beyond the core product and understanding how different service and support elements can create incremental value for a user and provide insights into how a product might be priced to capture that value. It often identifies similar service and support characteristics that can successfully differentiate what are often thought of as commodity products.<sup>19</sup> A common concern is that customers won't provide the data. However, our experience is that most customers are quite willing to share insights and data if it will help suppliers to serve them better.

Finally, a note on sample size: In-depth interviews do not require large numbers of respondents in order to elicit the key needs of the market. Multiple studies have shown that approximately 90 percent of key customer needs are uncovered with 10–12 interviews per major market segment.<sup>20</sup> For most product categories, this translates into 40–60 interviews across the typical four to six segments that constitute a seller's market. However, identifying key needs is not the same as estimating the prevalence of those needs. Qualitative interviews are often followed up with quantitative surveys that aim to estimate the portion of customers who identify with the key needs uncovered by the qualitative interviews.

## **EXPERIMENTALLY CONTROLLED STUDIES OF PREFERENCES AND INTENTIONS**

To solve some of the problems of bias and extraneous factors when measuring preferences and intentions, researchers try to exercise some control over the purchase situation presented to respondents.

The questions must be designed to make the survey respondents consider the questions in the same way they would consider an actual purchase decision. The extent to which that can ever be fully accomplished is still an open question, but marketing researchers, recognizing the potential value of accurate survey information, are certainly trying.

### **Simulated Purchase Experiments**

Many researchers believe that the best way to get consumers to think about a survey question and to respond as they would in a purchase situation is to simulate the purchase environment as closely as possible when asking the survey questions. With this type of research, the researcher asks the consumers to imagine that they are on a shopping trip and desire to make a purchase from a particular product class. Or, in more sophisticated setting, respondents may be sent to a simulated store which can be either a physical or virtual location, to conduct the shopping exercise. In this setting, the researcher shows consumers pictorial representations, descriptions, or sometimes actual samples of brands, and asks the consumers to choose among them, given various prices. Since actual products need not be used, this technique enables one to test pricing for new product concepts, as part of a general concept test, before the concepts are actually developed into products.

The primary difference between such a simulated purchase experiment and a laboratory purchase experiment is that participants only simulate the choice decision to purchase a product and so do not get to keep their choices.<sup>21</sup> The simulated purchase experiment is a widely used tool in pricing research

that overcomes two important drawbacks of other types of surveys. If it is structured as a choice task among alternative brands, a consumer's thought process should more closely approximate the process actually used when making a purchase. Also, since consumers have no way of knowing which brand is the one of interest to the researcher, they cannot easily think of the choice as a bargaining position or as a way to please the researcher. Thus, simulated purchase experiments can sometimes predict price sensitivity reasonably well.<sup>22</sup>

While any type of research is prone to bias, the simulated purchase experiments can often be an acceptable method for gaining quick and low-cost information on the buying behavior of consumers. If, for example, a company wants to estimate the price sensitivity of a product sold nationally, the cost of hundreds of in-store experiments throughout the country would be prohibitive. If the company conducted both an in-store experiment and a simulated purchase experiment in a few locations and found them reasonably consistent, it could confidently use the latter to cover the remaining locations and to conduct future research on that product class. Even if the experiment showed a consistent tendency to be biased, simulated purchase experiments could still be used successfully after the results had been adjusted by the amount of that previously identified bias.

### **Trade-Off (Conjoint) Analysis**

An experimental technique, called trade-off (or conjoint) analysis, has become popular for measuring price sensitivity as well as sensitivity to other product attributes.<sup>23</sup> The particular strength of trade-off analysis is its ability to disaggregate a product's price into the values consumers attach to each attribute. Consequently, trade-off analysis can help a company identify the differentiation value of unique product attributes and, more important, design new products that include only those attributes that consumers are willing to pay for as well as how much they are likely to pay for the entire product and service package. Currently, trade-off analysis aids in the design of a range of products, from apparel and office equipment to household cleaners and vacation packages.

The basic data for trade-off analysis are consumers' answers to questions that reveal not their directly stated purchase intentions, but rather the preferences that underlie those intentions. The researcher collects such data by asking respondents to make choices between pairs of fully described products or between different levels of product attributes. The product descriptions are designed to vary systematically in the levels of certain attributes that define the product as well as the price. When multiple priced levels are included in the study design, it is possible to assess not only the value assigned to certain product attributes but also to arrive at an estimate of price elasticity. The data are typically collected via an online survey, but can also be gathered via in-person interviews.<sup>24</sup>

After obtaining a consumer's preferences for a number of product or attribute pairs, the researcher then manipulates the data to impute the value (called utility) that each consumer attaches to each product attribute and the relative importance that each attribute plays in the consumer's purchase decision.<sup>25</sup> With these data, the researcher can predict at what prices the consumer would purchase products containing various combinations of attributes,

including combinations that do not currently exist in the marketplace. The researcher can also estimate how much of one attribute the consumer is willing to trade off in order to obtain more of another attribute—for example, how much more a consumer is willing to pay in order to obtain better fuel efficiency in a new automobile.

With similar data from a number of consumers who are representative of a market, the researcher can develop a model to predict the share of a market segment that would prefer any particular brand to others at any particular price. Since the researcher has collected data that reveal underlying preferences, consumers' preferences can be predicted, or interpolated, even for levels of price and other attributes not specifically asked about in the questionnaire, provided the attributes are continuously measurable and bounded by the levels that were asked about in the survey. When the researcher knows independently the size of the market and the identity of market segments, it is possible to create a simulation model for testing different price-offer combinations. "A Conjoint Study: Blue Sky Ski Company" (below) provides an example of such a process. Readers should note how the basic features were varied along with price in order to develop a relationship between features and value, here termed "feature utility."

It is useful to contrast trade-off analysis with direct questioning methods. By having respondents evaluate a product in its entirety rather than in the more abstract form of individual attributes, responses from a conjoint study are more likely to mimic actual choices. For example, in a recent study of MBA graduates, when asked about individual job attributes, the most important was not financial reward. Instead, MBA job seekers ranked intellectual challenge of the work and job location as more important than financial rewards.<sup>26</sup>

Of all the methods used to estimate price sensitivity from preferences or intentions, trade-off analysis promises the most useful information for strategy formulation. Researchers can do more than simply identify the price sensitivity of the market as a whole; they can identify customer segments with different price sensitivities and, to the extent that those differences result from differences in the economic value of product attributes, can also identify the specific product attributes that evoke the differences. Consequently, researchers can describe the combination of attributes that can most profitably skim or penetrate a market. The economic value of a product can also be identified, even when the product is not yet developed, by presenting consumers with different experimental product combinations in the form of pictorial and descriptive product concepts, or new product prototypes.

As a result of these promised advantages, the use of trade-off analysis by both market research firms and internal research departments has grown rapidly, but the performance of trade-off analysis is only as good as its ability to predict actual purchase behavior. There are a number of reasons why a prudent manager might suspect the reliability of this technique for some markets. Trade-off analysis is an experimental procedure that can introduce bias to the extent that it does not simulate the actual purchase environment. For items that are commonly purchased online, such as music, apparel, or insurance, online conjoint surveys can realistically mimic an actual purchase environment. For other types of purchases such as homes, restaurant meals, or many B2B transactions that are usually negotiated in person, an online conjoint survey provides more directional guidance that should be augmented

with managerial judgment, experience from analogous products, or in-depth customer interviews to better understand the purchase decision process.

Another potential source of bias is that the respondent of a conjoint test sometimes focuses more attention on price and price differences than may occur in a natural purchase environment, simply because side-by-side price comparisons are provided in the choice task. In situations where purchasers have difficulty obtaining and comparing price and product attributes in a real purchase situation, the conjoint study may overestimate the role of price. For example, research companies have compared the predicted effects of price on physicians' prescribing decisions with data on the actual price of the pharmaceuticals they prescribed. Studies invariably predict much higher price sensitivity among physicians than, in fact, is revealed by prescribing behavior.<sup>27</sup> Also, if respondents have little experience with the product category, as is usually the case with innovative product categories, the technique poorly predicts the trade-offs that customers will make because of their inability to map differences in features into likely benefits.

### A Conjoint Study: Blue Sky Ski Company

A small sporting goods manufacturer designed a downhill ski that incorporated a unique vibration control technology, promising downhill skiers easier turning, reduced "chatter" on rough surfaces, and a general reduction in the physical effort of skiing. To commercialize the most financially lucrative offer, the company commissioned a market research study to address several questions that would inform the marketing strategy. Three of the research questions involved pricing:

1. What is the demand for the product, including the price–volume trade-off?
2. For what segment(s) of skiers could the offer be targeted most profitably?
3. Given the innovative technology, would it be financially worthwhile to offer a longer warranty than the standard 90 days?

To address these questions, a market survey was developed that collected information on skier demographics, ability levels, and willingness-to-pay for different types of benefits. The survey was administered to 1,200 skiers across North America. The survey revealed four major segments:

- **Budget shoppers** are generally beginner and intermediate skiers who are first-time purchasers or make purchases only when old equipment is worn out or outgrown.
- **Value seekers**, who range in ability from intermediate to expert, consider new purchases frequently, but they make careful price–value trade-offs before actually spending any money.
- **Innovators** are intermediate to expert skiers who readily buy new technology.
- **Elite skiers**, who actively participate in ski clubs and race competitively, demo new equipment to find out what works best for them before purchasing it.

In addition to questions about personal demographics and past purchases, the survey included a conjoint-based simulated purchase exercise that asked respondents to evaluate several scenarios for their next potential ski purchase and indicate their most likely choice. Respondents were informed about the benefits of the new technology and then presented with several buying scenarios that included buying new skis with the electronic damping technology, buying well-known conventional skis, or keeping the skis they have and making no new purchase.

The early analysis of the survey generated disappointing findings: Overall the market was quite sensitive to price. Revenues were maximized at a price of \$450, but the product captured a disappointingly small share with a rapid drop-off at still higher prices. Complicating matters, the company would incur a high variable cost due to the relatively high cost of manufacturing and the royalty arrangement with the patent holder. Even at a profit-maximizing price for the overall market, the initial conclusion was that the potential return was not worth the risk.

Fortunately, one of the benefits of conjoint data is the ability to slice samples in different ways. Analysis of only the “innovators” revealed that they did indeed have a higher “take rate” for the product and, importantly, their take rate fell off much less rapidly at higher prices. Although only a small subset of the market, innovators could profitably support a price of \$800 (see Exhibit 8-7: Youth-Seeking “Innovators” Segment). Furthermore, it turns out that it is much cheaper to sell to innovators because they actively seek out new products and tend to only shop at a handful of high-end specialty shops, not the national sporting goods stores. As a result, advertising costs are significantly lower, and the manufacturer would not require an extensive distribution network. Apparently the

**EXHIBIT 8-7** Analysis of Youth-Seeking “Innovators” Segment

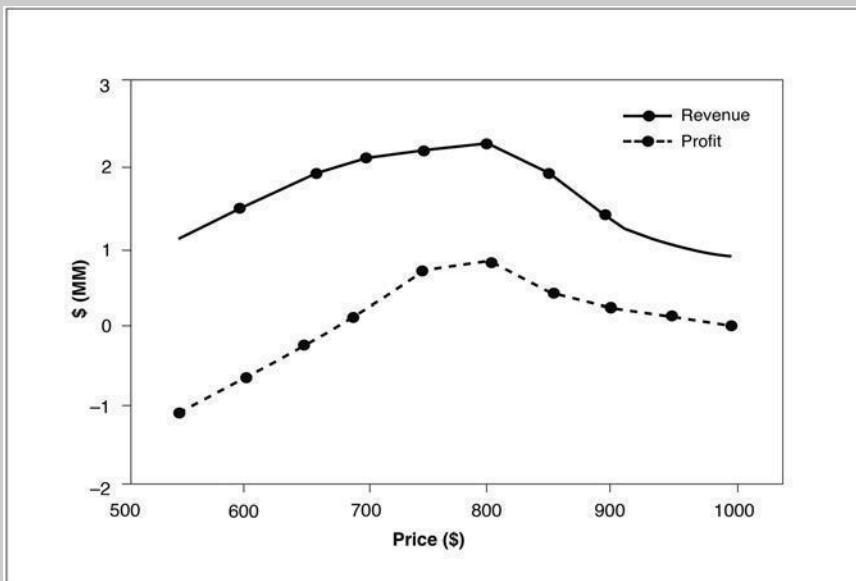
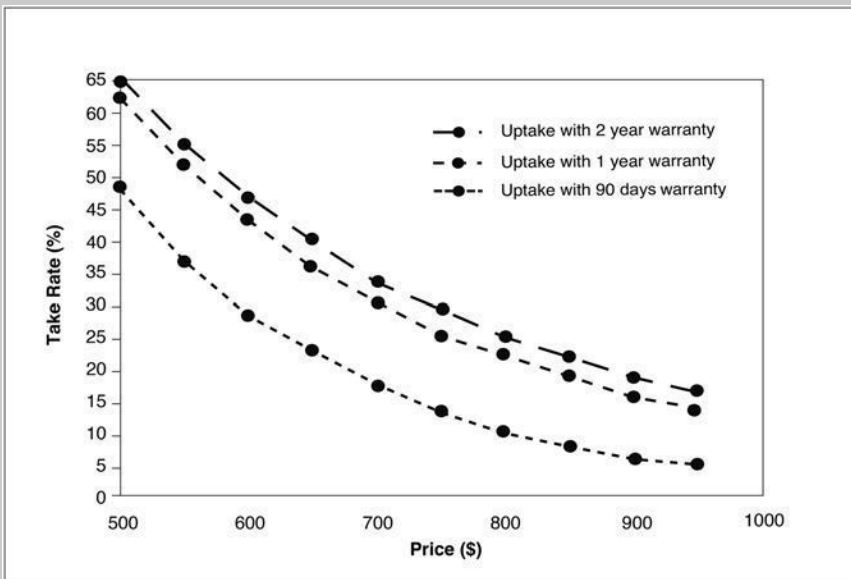




EXHIBIT 8-8 Effect of Warranty on Take Rate



Source: Deloitte study. The product category and price levels have been changed to protect client confidentiality.

higher take rate among the innovators reflected a demographic subset: 35- to 50-year-old men who had, in their youth, been very good skiers but were now feeling the effects of age in their knees. The promise of lower effort, reduced chatter, and easier turning were benefits for which this group was willing and able to pay a significant premium. This finding opened the possibility that there was an opportunity to sequentially “skim” the market with a high initial price at launch.

Finally, conjoint analysis enabled the company to isolate and measure the impact of individual features on willingness-to-pay and overall purchase rates. The research revealed that moving from a 90-day to a one-year warranty more than doubled the take rate of the product by respondents in the target segment (see Exhibit 8-8: Effect of Warranty on Take Rate).

Because trade-off analysis measures underlying preferences, researchers have the ability to check if an individual consumer’s responses are at least consistent. Consumers who are not taking the survey seriously, or who are basically irrational in their choice processes, are then easily identified and excluded from the sample. Even more comforting are three separate studies that show a high degree of consistency, or reliability, when subjects are asked to repeat a trade-off questionnaire a few days after having taken it initially.<sup>28</sup> Since the subjects are unlikely to remember exactly how they answered the questions in the earlier session, the consistency of the answers over time strongly suggests that they do accurately reflect true underlying preferences. More comforting still is the result of a study showing that

the exclusion from the questionnaire of some product attributes a subject might consider important does not bias the subject's responses concerning the trade-offs among the attributes that are included.<sup>29</sup> Although trade-off analysis is more costly than a simple survey, it also provides much more information. Given its relatively modest cost and the fact that it has met tests of reliability, trade-off analytics certainly warrants consideration, particularly to understand the value of features by segment when designing new products and offers.<sup>30</sup>

## USING MEASUREMENT TECHNIQUES APPROPRIATELY

Numerical estimates of price sensitivity can either benefit or harm the effectiveness of a pricing strategy, depending on how management uses them. This is especially true when respondents have considerable experience with the use and purchase of a product. If managers better understand their buyers and use that knowledge to formulate judgments about buyers' price sensitivity, as discussed in Chapter 6, an attempt to measure price sensitivity can be very useful. It can give managers new, objective information that can either increase their confidence in their prior judgments or indicate that perhaps they need to study their buyers further. An understanding of price sensitivity also provides a reference by which to judge proposed price changes—how will sales respond as we increase or decrease prices? Combined with variable cost data, it is possible to judge whether proposed changes in price will have a positive effect on profits.

Integrating soft managerial judgments about buyers and purchase behavior with numerical estimates based on hard data is fundamental to successful pricing. Managerial judgments of price sensitivity are necessarily imprecise while empirical estimates are precise numbers that management can use for profit projections and planning. However, precision doesn't necessarily mean accuracy. Numerical estimates of price sensitivity may be far off the mark of true price sensitivity. Accuracy is a virtue in formulating pricing strategy; precision is only a convenience.

No estimation technique can capture the full richness of the factors that enter a purchase decision. In fact, measurements of price sensitivity are precise specifically because they exclude all the factors that are not conveniently measurable. Some estimation techniques enable the researcher to calculate a confidence interval around a precise estimate, indicating a range within which we may have some degree of statistical certainty that the true estimate of price sensitivity lies. In other cases a confidence interval can be estimated by considering how demand might change under different scenarios. Fortunately, a manager does not have to make the choice between judgment and empirical estimation. Used effectively, they are complementary, with the information from each improving the information that the other provides.

In any case, one needs to remember that estimating price sensitivity is both "Art" and "Science," and both analytical rigor and managerial judgment need to be exercised. As described in earlier chapters, a consumer's perception of price and value, and hence demand curve, can be influenced based on how the offer is structured, communicated, and based on which price metric is used.

### Using Judgment for Better Measurement

Any study of price sensitivity should begin with the collection of information about buyers—who they are, why they buy, and how they make their purchase decisions—since those are the essential inputs in the formulation of judgment. At the outset, this information should come from open-ended, qualitative, or exploratory research that enables managers to discover facts and formulate impressions other than those for which they may have been specifically looking.<sup>31</sup> In industrial markets, such research may consist of accompanying salespeople to observe the purchase process. After a sale, managers might follow up to ask how and why the purchase decision was made. One can also look at past bid histories to see the correlation between various price levels and the likelihood of winning the bid. In many cases, managers can interview important customers and intermediaries by telephone to gain their impressions about a variety of price and marketing issues.<sup>32</sup> In consumer markets, such research may consist of observing consumers discussing their purchase decisions in focus groups or in-depth interviews as previously discussed. Insights generated from such informal observation could then be confirmed with more formal research in the form of a survey administered to a larger number of buyers.

Having formed judgments about buyers based on qualitative impressions developed from observing them, a manager will often find it practical and cost-effective to expand this understanding through original primary research that attempts to measure certain aspects of buyer behavior, such as price sensitivity. That attempt is far more likely to produce useful results, to the extent that management already understands the way buyers make their purchase decisions and uses that information to help structure the attempt at measurement. There are a number of ways that managerial judgment can, and should, guide the measurement effort:

1. For experimentally controlled data estimation, managerial judgment should determine the focus of the research on certain target demographic groups and provide guidance for generalizing from those groups to the population as a whole.
  - Management may know that 80 percent of its product's buyers are women who are employed full-time. That information is important if the researcher plans to measure price sensitivity with an in-home survey or an experiment in a shopping center. On a typical day between 9:00 a.m. and 5:00 p.m., few of the experimental subjects at home or in the shopping center would be representative of that product's buyers. To get a representative sample, the researcher might need to conduct the in-home survey in the evenings or the experiment only during the lunch hour at locations near where many women work. He or she might also ask a prescreening question (Are you employed full-time?).
  - If management also knows that different demographic groups buy the product in different quantities, that information can be used to scale the survey results differently for different subjects in the sample to reflect their relative impact on the product's actual sales.
2. For historical data estimations, the intervention of informed managerial judgment into the analysis is even more essential, since the lack of any experimental control invariably results in data that are full of potential

statistical problems. Managerial judgment should be used to reduce random error and solve statistical problems.

- The effect of price changes tends to get overwhelmed in historical purchase data by the amount of sales variation caused by other factors, which may not be obvious to the researcher but may be to managers who know their markets. For example, a researcher analyzing many years' worth of data on the sales of a frozen seafood product could substantially improve the estimation of price sensitivity if management pointed out that many buyers purchase the product as part of their religious observance of Lent, a Christian holiday that shows up at a different time every year. That one bit of information about why consumers buy would enable the researcher to eliminate a substantial amount of random variation in the data that would otherwise yield a biased estimate of price sensitivity if it were not included.
  - The researcher using historical data is also often confounded by the problem called collinearity, where different explanatory variables change together. Perhaps, at the same time that a firm offers a promotional price deal, it always offers retailers a trade deal in return for a special product display. Without additional input from management, the researcher cannot sort out the effect of the price deal from that of the display. If, however, management knows that buyers of the product are like those of another product that is sometimes sold on special displays without a price deal, the researcher could use sales data from that other product to solve the collinearity problem with this one. Alternatively, if managers are confident in making a judgment about the effectiveness of special displays (for example, that they account for between one-third and one-half of the total sales change), that information can likewise help the researcher to narrow an estimate of the effect of price on sales.<sup>33</sup>
3. Managerial judgment should also be used to select the appropriate structure for an experiment or survey, and the appropriate specification of a statistical equation for analysis of historical data.
    - A manager who has studied buyers should know the length of the purchase cycle (time between purchases) and the extent of inventory holding, both of which will govern the necessary length of an experiment or the number of lagged variables to include when analyzing historical data. Failure to appropriately specify the purchase cycle could cause a researcher to grossly miscalculate price sensitivity by ignoring the longer-term effects of a price change.
    - Management may have much experience indicating that an advertisement affects buyers differently when the advertisement focuses on price rather than on other product attributes. If so, the researcher should separate those types of advertising in an experiment or in historical data analysis. The researcher might also treat price advertising as having an effect that interacts with the level of price, and non-price advertising as having an independent effect.
  4. For survey research, managerial judgment should guide the preparation of product descriptions, to ensure that they include the variables relevant to buyers and that they describe them with the appropriate connotations.

- For an automobile survey, management can point out that 0–60 mph acceleration time is an important attribute to include when describing a sports car, but less so when describing a family car.
- For a survey on workwear, managers can point out that “abrasion resistance” in a description will carry a connotation much different from the word “tough,” which may influence buyers’ perceptions about other attributes such as long-term durability or warmth of the garment.

The common failure to use this type of managerial input (or the failure of management to know buyers well enough to provide it) is no doubt one reason why research to measure price sensitivity is sometimes disappointing.

When measurement embodies managerial judgment, it is much more likely to provide useful information, but even then the results should never be taken uncritically. The first question to ask after any marketing research is, “Why do the results look the way they do?” The measurement of price sensitivity is not an end result but a catalyst to learn more about one’s buyers. If the results are inconsistent with prior expectations, one should consider how prior judgment might have been wrong. What factors may have been overlooked, or have been given too little weight, leading to the formulation of incorrect expectations about price sensitivity? One should also consider how bias might have been introduced into the measurement process. Perhaps the measurement technique heightened buyers’ attention to price or the sample subjects were unrepresentative of the product’s actual buyers. Regardless of the outcome of such an evaluation, one can learn more about the product’s buyers and the factors that determine their price sensitivity. Even when one concludes that the measurement technique biased the results, the bias reveals information (for example, that the low level of price sensitivity that management expected is substantially due to buyers’ low attention to price in the natural purchase environment, or that a segment of people who do not regularly buy the firm’s product has a different sensitivity to price).

### **Using Online and Mobile Techniques**

Since the advent of the internet, market researchers and their clients are increasingly using online surveys for gathering customer and market data. Over 50 percent of surveys today<sup>34</sup> are opened on mobile devices and online survey research is driving growth in the market research industry.<sup>35</sup> Response rates are generally high because online surveys are minimally intrusive and simply require a response to an email. However, online research may be subject to some sampling bias—online respondents are not necessarily representative of the broader target population. Lower-income households, rural residents, and older people, for example, are less likely to be represented among online samples.<sup>36</sup> Nonetheless, online research can be particularly effective for identifying very specific or specialized subgroups to target for research.

### **Outside Sources of Data**

In addition to performing experiments and evaluating available sales data, one should be aware of the many external sources of data that are available to shed light on price sensitivity. Public records such as those found at government institutions or industry trade groups contain vast sources of data and

information on historical sales trends, industry actions, as well as a record of other factors that may affect the market of interest. Market research firms specialize in performing the types of experiments and analyses described in this chapter. The journals published by various academic and industry institutions offer lessons from the past that may apply to new products. The Society of Competitive Intelligence Professionals (SCIP) is an industry trade group that is devoted to the quest of finding competitive intelligence.<sup>37</sup>

Other secondary sources of data for industrial markets, including the Census of Manufacturers, the Survey of Industrial Buying Power, and numerous other governmental and private sources,<sup>38</sup> can tell sellers the types of businesses their buyers engage in and the share of the total market each accounts for, the average size of their purchases in major product classes, and their growth rates. In consumer markets, consumer panel surveys are widely available to tell managers the demographics of their buyers (income, family size, education, use of coupons), as well as those of their closest competitors. Other companies develop complete psychographic profiles of buyers that go beyond just demographics to delve into the innermost psychological motivations for purchase. These are relatively inexpensive sources of data from which management can form judgments about price sensitivity.

Regardless of the method of intelligence gathering, recognize that the key aim of the marketer is to listen to the voice of the customer, understand how product attributes get translated into benefits, and how benefits are converted into a willingness to pay money to obtain a good.

### **Selecting the Appropriate Measurement Technique**

The choice among measurement techniques is not arbitrary. Each is more appropriate than another under certain circumstances. Information about trade-offs between price and attributes is most valuable when a company is developing new products or improving old ones. Since one cannot use historical data or a purchase experiment to test undeveloped products, one must turn to research on preferences and intentions that require only product descriptions or experimental prototypes. Trade-off (conjoint) analysis is a great choice at this point. But surveys of preferences, like conjoint analysis, sometimes yield poor predictions of actual price sensitivity in real-world purchase situations because they create an artificial purchase environment in which price awareness and knowledge of substitutes is made easy. At the time of product development, however, those are not factors about which management need be concerned. Product development focuses on efforts to enhance the attractiveness of the product when customers are aware of differences. Even when survey research accurately measures only the effect of product attributes on price sensitivity, it is a useful tool for product development, although it may be inadequate for actually setting prices later on.

Once a product is developed, management would like to have measurements that capture as many of the different determinants of price sensitivity as possible. In-store or sophisticated laboratory purchase experiments are definitely the first choice for frequently purchased, low-cost products. With few exceptions, such products are bought by consumers who have low price awareness and give the purchase decision little attention. Consequently, surveys to estimate price sensitivity for such products focus much more attention

on price in the purchase decision than would occur naturally, thus distorting the estimates. The cost of in-store experiments, however, may make them impractical for testing on a large scale. In that case, management might best do a few in-store experiments with matched simulated purchase surveys. If the amount of bias in the latter is stable, the survey could be used for further research and adjusted by the amount of the bias between the survey and the in-store experiments.

When the fully developed product is a high-cost durable such as a television or a new car model, an in-store experiment is impractical. A laboratory purchase experiment may be practical since experimental control permits inferences from fewer purchases but will be too costly for many products. Fortunately, high-value products are also products for which consumers naturally pay great attention to price. In fact, they may give all aspects of the purchase careful thought because it involves a large expenditure. Consequently, a simple laboratory experiment or a simulated purchase survey may be reasonably accurate in predicting price sensitivity for these types of products. Even a buy-response survey may be useful to identify the range of prices that potential customers might find acceptable for such products, although the exact estimates of sales at various prices should not be treated with much confidence.

Once a product has been on the market for a while, historical data become available. Such data are most useful when managers are willing to implement marketing decisions in ways that can increase the research value of the data. For example, sales data become more useful if price changes are sometimes accompanied by a change in advertising and other times not, enabling marketing researchers to isolate their separate effects. A log of unusual events that cause distortions in the actual sales data (for instance, a strike by a competitor's truckers may be causing stock-outs of the competitor's product and increased sales of yours) is also extremely useful when the time comes to adjust the historical data. Moreover, as managers talk with and observe buyers, they should keep questions in mind that would aid the researcher using historical data. What is the length of the purchase cycle? To what extent do buyers purchase extra for inventories when price is expected to rise in the future? Even if historical data are so filled with random variations that no conclusions can be drawn from them with confidence, they may still point toward possible relationships between price and sales or other marketing variables that would be worth examining with another research technique.

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## Summary

Numerical estimation of price sensitivity is no shortcut to knowing a product's buyers—who they are, how they buy, and why they make their purchase decisions. Numerical estimates are an important source of objective information that can supplement the more subjective

observations that usually dominate managerial judgments about price sensitivity. As a supplement, they can substantially improve the accuracy of such judgments and the effectiveness of a firm's pricing.

Measurement techniques differ in the variables they measure and in the

conditions of measurement. The variable measured may be either actual purchases or preferences and intentions. Since the ultimate goal of research is to predict customers' actual purchases, research based on actual purchase data is generally more reliable than research based on preferences and intentions. Unfortunately, collecting and analyzing actual purchase data costs more, requires much more time, and is entirely impossible for products that are not yet fully developed and ready for sale. Consequently, most research on price sensitivity infers purchase behavior from questions potential customers answer about their preferences and intentions.

Pricing research studies range from those that are completely uncontrolled to those in which the experimenter controls almost completely the alternative products, their prices, and the information that customers receive. Although research techniques that permit a high degree of experimental control are more costly than uncontrolled research, the added cost is usually worth it. Uncontrolled data on actual purchases are plagued by too little variation in prices and too many variables changing at once. Uncontrolled data on preferences and intentions are biased by people's untruthful responses and by their inability to recall competitive prices. In contrast, controlled in-store experiments and sophisticated laboratory purchase experiments often predict actual price sensitivity well. Even experiments using preferences and intentions seem to warrant confidence when they are highly controlled. In particular, trade-off analysis is proving highly useful in predicting at least that portion of price sensitivity determined by the unique-value effect.

The appropriate technique for numerically estimating price sensitivity depends on the product's stage of development. When a product is still in the concept or prototype stage, research measuring preferences or intentions is the only option. Trade-off analysis is especially useful at this stage because it can identify the value of individual product attributes, thus helping to decide which combination

of attributes will enable the firm to price the product most profitably. When a product is ready for the market, in-store or laboratory purchase experiments are more appropriate because they more realistically simulate the actual purchase environment. After a product has been on the market for a while, actual purchase data can be an inexpensive source of estimates, provided that management monitors sales frequently and makes some price changes independently of changes in other marketing variables. Even when actual purchase data cannot provide conclusive answers, they can suggest relationships that can then be measured more reliably with other techniques.

Regardless of the technique used to measure price sensitivity, it is important that managers not allow the estimate to become a substitute for managerial judgment. The low accuracy of many numerical estimates makes blind reliance on them very risky. One always needs to be aware of the range of values an elasticity estimate can take, the factors that can influence price sensitivity, and one must generally get an understanding of the range of values one can expect. They always should be compared with a manager's own expectations, based on his or her more general knowledge of buyers and their purchase motivations. When inconsistencies occur, the manager should reexamine both the measurement technique and the adequacy of his or her understanding of buyers. The quality of numerical estimates depends in large part on the quality of managerial judgment that guides the estimation process. Managers who know their buyers can get substantially better estimates of price sensitivity when they use that knowledge (i) to select a sample of consumers that accurately represents the product's market, (ii) to identify and explain extraneous changes in sales that might camouflage an effect, (iii) to provide information to sort out the effects of price from other variables that tend to change with it, (iv) to identify an appropriate equation or experimental structure, and (v) to properly describe the product for survey research.



## Notes

1. Albert Einstein, quoted by Margo Einstein in a letter to Carl Seelig, May 8, 1955.
2. Actually, the researcher observes only the price that the consumer reports having paid. There is some risk of erroneous reporting, which weakens the data but does not bias it. Fortunately, this problem is being solved by technologies that enable consumers to avoid the task of reporting.
3. See Ronald E. Frank and William Massy, "Market Segmentation and the Effectiveness of a Brand's Dealing Policies," *Journal of Business* 38 (April 1965), pp. 186–200; Terry Elrod and Russell S. Winer, "An Empirical Evaluation of Aggregation Approaches for Developing Market Segments," *Journal of Marketing* 46 (Fall 1982), pp. 65–74.
4. The companies are Information Resources Inc. (headquarters in Chicago) and Burke Marketing Research (headquarters in Cincinnati, Ohio).
5. See, for example, David R. Bell, Joengwen Chiang, and V. Padmanabhan, "The Decomposition of Promotional Response: An Empirical Generalization," *Marketing Science* 18(4) (1999), pp. 504–526; Shuba Srinivasan, Peter T.L. Popkowski Leszczyc, and Frank M. Bass, "Market Share Response and Competitive Interaction: The Impact of Temporary, Evolving, and Structural Changes in Prices," *International Journal of Research in Marketing* 17 (2000), pp. 281–305; and Koen Pauwels, Shuba Srinivasan, and Philip Hans Franses, "When Do Price Thresholds Matter in Retail Categories?" *Marketing Science* 26(1) (January–February 2007), pp. 83–100.
6. Gigwalk website: [www.gigwalk.com](http://www.gigwalk.com).
7. For example, *Econometric Analysis*, 7th edn., by William H. Greene (Boston, MA: Pearson, 2012) is an excellent resource, as is *Econometric Analysis of Cross Section and Panel Data*, 2nd edn., by Jeffrey Wooldridge (Cambridge, MA: MIT Press, 2010).
8. For a brief introduction to regression analysis, see Thomas C. Kinnear and James R. Taylor, *Marketing Research: An Applied Approach*, 4th edn. (New York: McGraw-Hill, 1991), pp. 626–628; or Mark L. Berenson and David M. Levine, *Basic Business Statistics: Concepts and Application* (Upper Saddle River, NJ: Prentice Hall, 1992), Chapter 16.
9. William D. Barclay, "Factorial Design in a Pricing Experiment," *Journal of Marketing Research* 6(4) (November 1969), p. 428.
10. Paul Solman and Thomas Friedman, *Life and Death on the Corporate Battlefield* (New York: Simon and Schuster, 1982), Chapter 24.
11. James Allen, "You Cut Your Prices. So Why Didn't Consumers Notice?" *Wall Street Journal*, February 20, 2017. Accessed at <https://blogs.wsj.com/experts/2017/02/20/you-cut-your-prices-so-why-didnt-consumers-notice>.
12. Several good discussions of the increased use and application of laboratory test markets (called Simulated Test Marketing by the authors) can be found in Kevin J. Clancy and Robert S. Shulman, "Simulated Test Marketing: A New Technology for Solving an Old Problem," in *The Advertiser*, by Association of National Advertisers (Fall 1995), pp. 28–33; and also in Kevin J. Clancy and Robert S. Shulman, "Test for Success: How Simulated Test Marketing Can Dramatically Improve the Forecasting of a New Product's Sales," *Sales and Marketing Management* (October 1995), pp. 111–114.
13. One might well argue that buy-response surveys should be included with the experimentally controlled studies since the researcher does exercise control over the price asked. That observation is correct. The reason that buy-response questioning is better

- than direct questioning is precisely because the researcher introduces a bit of control. Still, the amount of control that the researcher can exercise in these studies is slight. No attempt is made to control the respondents' perception of competitive prices, exposure to promotion, or demographics.
14. Gerard Tellis and Deepa Chandrasekaran, "Extent and Impact of Response Biases in Cross-National Survey Research," *International Journal of Research in Marketing* 27(4) (December 2010), pp. 329–341.
  15. Henry Assael, *Consumer Behavior and Marketing Action*, 4th edn. (Boston, MA: PWS Publishing Co., 1992).
  16. For a good discussion on the application of and difference between focus group and depth interviews as unstructured/uncontrolled data-collection techniques, see Thomas C. Kinnear and James R. Taylor, *Marketing Research: An Applied Approach*, 4th edn. (New York: McGraw-Hill, 1991).
  17. Abbie Griffin and John R. Hauser, "The Voice of the Customer," *Marketing Science* 12(1) (Winter 1993), pp. 1–27.
  18. James C. Anderson and James A. Narus, "Business Marketing: Understand What Customers Value," *Harvard Business Review* (November–December 1998), pp. 53–65.
  19. For an excellent discussion on the types of value drivers and how to uncover those value drivers in both consumer and business-to-business research, see Ian C. MacMillan and Rita Gunther McGrath, "Discovering New Points of Differentiation," *Harvard Business Review* (July–August 1997), pp. 133–145.
  20. Tellis and Chandrasekaran, "Extent and Impact of Response Biases in Cross-National Survey Research," pp. 329–341.
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## Financial Analysis

### Analyzing Costs and Profits for Pricing

*It was only a sunny smile and little it cost in the giving but like morning light it scattered the night and made the day worth living.*

F. Scott Fitzgerald<sup>1</sup>

Internal financial considerations and external market considerations are, at many companies, antagonistic forces in pricing decisions. Financial managers allocate costs to determine how high prices must be to achieve profit objectives. Marketing and sales staff analyze buyers to determine how low prices must be to achieve sales objectives. Neither approach will lead to optimizing the firm's profitability and growth. An effective pricing strategy requires taking account of, and making trade-offs between, both internal financial and external market constraints.

This chapter describes how managers can make that integration. It describes a simple, logically intuitive procedure for quantitatively evaluating the potential impact of a price level change on profitability, even if their knowledge of price elasticity is imprecise and qualitative. Although the accuracy of the resulting decision will be only as good as the accuracy of the information used to reach it, the process we propose helps ensure that a decision about what price level to set for any targeted segment is the best possible given the available information and previously chosen price metric.

#### **EVALUATING THE FINANCIAL IMPLICATIONS OF PRICE ALTERNATIVES**

A company's margin goals, return on capital goals, and operating profit goals are, or at least should be, entirely irrelevant to pricing decisions. They are quite relevant for determining whether a company should invest to enter a market or to offer a line of products or services. Thus, a company should anticipate the prices it expects will be possible before making such investments, and reject those investments where it seems that viable price scenarios will be

inadequate to generate an adequate return on investment. Having made that investment, however, the best choice between two or more alternative price points is determined entirely by which one will generate the most profit contribution—revenue minus incremental, avoidable costs.

This makes evaluating price levels much easier than most people imagine as they go through various means to allocate costs under different scenarios. There are only two things that need to be considered when comparing alternative price level proposals: What is the difference in revenue expected and what is the difference in costs that will be incurred to generate that revenue. In most cases, the difference in costs is the easier of the two to estimate, but even there it is possible to make mistakes that can lead to poor decisions. Consequently, we will begin with guidance on how to select the appropriate costs for price analysis.

Not all costs are relevant for every pricing decision. A first step in pricing is to identify the relevant costs: Those that actually determine the profit impact of the pricing decision. In principle, identifying the relevant costs for pricing decisions is actually fairly straightforward. They are the costs that are incremental (not average) and avoidable (not sunk). In practice, identifying costs that meet these criteria can be difficult unless a company has a good managerial accounting system in place. If one must rely on financial accounts, which describe past averages and include costs that are no longer avoidable, a pricing manager will need to create a “roughly right” approximation of the incremental, avoidable costs in order to create a pricing capability. We will now explain each of these distinctions in detail and illustrate it in the context of a practical pricing problem.

## WHY INCREMENTAL COSTS?

Pricing decisions affect whether a company will sell less of the product at a higher price or more of the product at a lower price. In either scenario, some costs remain the same (in total). Consequently, those costs do not affect the relative profitability of one price versus another. Only costs that rise or fall (in total) when prices change affect the relative profitability of different pricing strategies. We call the costs that change with the change in a pricing decision “incremental” to that decision.

Incremental costs are the costs associated with changes in pricing and sales. The distinction between incremental and non-incremental costs parallels closely, but not exactly, the more familiar distinction between variable and fixed costs. Variable costs, such as the costs of raw materials in a manufacturing process, are costs of doing business. Because pricing decisions affect the amount of business that a company does, variable costs are always incremental for pricing. In contrast, fixed costs, such as those for product design, advertising, and overheads, are costs of being in business.<sup>2</sup> They may be incremental when deciding whether to be in the business of selling a particular type of product or, in some cases, to serve a particular segment of customers. But fixed costs that are not affected by how much a company actually sells (such as R&D and corporate overhead) are not incremental and therefore not relevant when management must decide what price level to set to maximize profit.

Some fixed costs, however, are incremental for pricing decisions, and they must be appropriately identified. Incremental fixed costs are those that

directly result from implementing a price change or from offering a version of the product at a different price level. For example, the fixed cost for a restaurant to print menus with new prices or for a public utility to gain regulatory approval for a rate increase would be incremental when deciding whether to make those changes. The fixed cost for an airline to advertise a new discount service or to upgrade its planes' interiors to offer a premium-priced service would be incremental when deciding whether to offer products at those price levels.

To further complicate matters, many costs are neither purely fixed nor purely variable. They are fixed over a range of sales but vary when sales go outside that range. The determination of whether such semifixed costs are incremental for a particular pricing decision is necessary to make that decision correctly. Consider, for example, the role of capital equipment costs when deciding whether to expand output. A manufacturer may be able to fill orders for up to 100 additional units each month without purchasing any new equipment, simply by using the available equipment more extensively. Consequently, equipment costs are non-incremental when figuring the cost of producing up to 100 additional units. If the quantity of additional orders increased by 150 units each month, though, the factory would have to purchase additional equipment. The added cost of new equipment would then become incremental and relevant in deciding whether the company can profitably price its units low enough to attract that additional business.

To illustrate the importance of properly identifying incremental costs when making pricing decisions, consider the problem faced by the business manager of an annual one-day music festival produced by a small town near a major metro area. The summertime festival is a source of pride for the town but the event must turn a profit, ideally one sufficient to subsidize other cultural events throughout the year. The festival incurs the following costs.

Planning and management overhead	\$15,000
Performer compensation	\$40,000
Venue (rentals and security)	\$20,000 per day
Variable costs (e.g., programs, ticketing)	\$10 per patron

When the town's new business manager came on board a few years ago, she began to increase prices with the festival continuing to sell out capacity at 1,000 tickets. Last year, however, ticket sales fell to only 914 after she increased prices once again, from \$90 to \$100 per ticket. That price covered all the costs and the town eked out a small profit of \$7,260. But the failure of the festival to sell out hurt civic pride, as well as local merchants who rely on the festival for a boost in summer sales.

The town manager is reluctant to roll back prices, believing that the festival should make more of a financial contribution to the town. However, she is under pressure to revive festival attendance. Two proposals were put forward, although both involved selling seats at lower prices.

**PROPOSAL A: ADDITIONAL PERFORMANCE** Offer the same program of performers on Friday as well as Saturday. The manager expects that making Friday tickets available for \$85 would definitely revive interest from patrons who were deterred by the \$100 price. Based upon the demand turned away in prior

years, she estimates that a Friday program could sell 700 tickets, but as many as 200 of those could be sold to people who would otherwise have attended the higher-priced Saturday performance. The net increase in ticket sales, after accounting for the cannibalization of Saturday sales, would still be 500 tickets, generating a 50% increase in total festival attendance and incremental revenue of \$39,500. Performers indicated that they would give a second performance of the same program at half the one-day fee. The cost to set up staging and seating for the venue (\$8,000) would not need to be borne again to offer the program two days in a row, reducing the venue cost to \$12,000 for the added performance.

**PROPOSAL B: STUDENT RUSH DISCOUNT** A less ambitious, but not necessarily exclusive, proposal would involve offering half-price tickets to bona fide full-time students for any seat still unsold 24 hours before the festival performance. The manager estimates she could easily sell 100 such tickets, but as many as 20 might be to students who otherwise would have bought a full price ticket rather than waiting for the chance to get one at half price. The net increase in ticket sales from this option, after accounting for cannibalization of full price tickets, is 80 tickets generating incremental revenue of \$3,000.

Which, if either, of these proposals should the town manager adopt if the goal is to maximize net income to the town? An analysis of the alternatives is shown in Exhibit 9-1 and there are a few points that are noteworthy. First, the ticket prices proposed for either proposal do not cover the fully allocated average cost per ticket, a little over \$85. At companies that still use the antiquated and flawed practice of “absorption cost” accounting for managerial decisions, both options would be rejected outright as unprofitable unless ticket prices covered that cost. But the advantage of both proposals is that much of the cost of the festival, although necessary for those options, is not incremental to making the additional sales that they would generate. At the proposed ticket prices, the incremental revenue expected to be generated by either proposal more than covers the incremental cost. Also noteworthy is that the Student Rush proposal is expected to be almost as profit-enhancing as the additional Friday performance, even though it generates less than one-tenth of the revenue.

Second, an important cost that is often overlooked in such an analysis is the “opportunity cost” of revenues forgone from other sales: In this case, the forgone sales of some \$100 tickets when cheaper tickets are offered under the new proposals. Although the “student rush” option involves selling tickets at the lowest price, that price is easily “fenced” to minimize cannibalization of higher-priced ticket sales by limiting it to bona fide students. Offering discounted student rush tickets enables the potential to sell out the full venue while maintaining the \$100 price that most patrons find acceptable, adding over \$2,000 to the town’s expected \$7,260 income from offering the festival at \$100 per ticket to everyone else. The Friday option, however, relies on customers self-segmenting. Considering the greater uncertainty involved in offering the extra Friday performance, with a greater potential for loss if the expected incremental sales are not achieved or if more patrons shift from the Saturday to the cheaper Friday performance, the student rush might well be a better choice.

## EXHIBIT 9-1 Analysis of Music Festival Revenue Options

	Saturday Only	Friday Add.	Student Rush
<b>Price</b>	<b>\$100.00</b>	<b>\$85.00</b>	<b>\$50.00</b>
Sales	914	700	100
Gross Revenue	\$91,400	\$59,500	\$5,000
Cannibalization of Friday tickets	0	200	20
<b>Incremental Revenue</b>	<b>\$91,400</b>	<b>\$39,500</b>	<b>\$3,000</b>
Incremental Revenue / Ticket Sold	<b>\$100.00</b>	<b>\$56.43</b>	<b>\$30.00</b>
Incremental Performer Cost	\$40,000	\$20,000	0
Incremental Venue Cost	\$20,000	\$12,000	0
Variable Cost/Patron	\$10	\$10	\$10
Incremental Variable Cost	\$9,140	\$5,000	\$800
Admin Overhead	\$15,000	0	0
<b>Incremental Profit Contribution</b>	<b>\$7,260</b>	<b>\$2,500</b>	<b>\$2,200</b>
Avg. Total Cost Per Ticket Sold	\$92.06	\$85.67	\$85.45

Although the music festival example is hypothetical, the analytical challenges it illustrates are not. Scores of companies add to profit from sales that are priced below average cost, which they can do when that average includes costs that are not incremental to the additional sales:

- Packaged goods manufacturers often supply generic versions of their branded products at prices below average cost. They can do so profitably because they can produce them with little or no incremental costs of capital, shipping, and selling beyond those already incurred to produce their branded versions.
- A leading manufacturer of industrial cranes also does milling work for other companies whenever the firm's vertical turret lathes would not otherwise be used. The price for such work does not cover a proportionate share of the equipment cost. It is, however, profitable work since the equipment must be available to produce the firm's primary product. The equipment cost is, therefore, not incremental to the additional milling work.
- Airlines fly weekend flights that do not cover a proportionate share of capital costs for the plane and ground facilities. Those costs must be incurred to provide weekday service and so are irrelevant when judging whether weekend fares are adequate to justify this service. In fact, weekend fares often add incrementally more to profits than higher weekday fares precisely because they require no additional capital.

In each of these cases, the key to getting the business is having a low price. Yet one should never be deceived into thinking that low-price sales are necessarily low-profit sales. In some cases, they make a disproportionately large contribution to profit because they make a small incremental addition



to costs. The goal of pricing is not to make higher priced sales; it is to make higher profit sales.

### **WHY FOCUS ON AVOIDABLE COSTS?**

The hardest principle for many business decision-makers to accept is that the costs which are relevant for pricing are the ones that are still avoidable, not the historical ones already incurred. Avoidable costs are those that either have not yet been incurred or can be reversed. The costs of selling a product, delivering it to the customer, and replacing the sold item in inventory are avoidable, as is the rental cost of buildings and equipment that are not covered by a long-term lease. The opposite of avoidable costs are sunk costs—those costs that a company is irreversibly committed to bear. For example, a company's past expenditures on research and development are sunk costs since they cannot be changed regardless of any decisions made in the present. The rent on buildings and equipment within the term of a current lease is sunk, except to the extent that the firm can avoid the expense by subletting the property.<sup>3</sup>

The cost of assets that a firm owns may or may not be sunk. If an asset can be sold for an amount equal to its purchase price times the percentage of its remaining useful life, then none of its cost is sunk, since the cost of the unused life can be entirely recovered through resale. Popular models of airplanes often retain their value in this way, making avoidable the entire cost of their depreciation from continued use. If an asset has no resale value, then its cost is entirely sunk even though it may have much useful life remaining. A neon sign depicting a company's corporate logo may still function for a long time, but its cost is entirely sunk since no other company would care to buy it. Frequently, the cost of assets is partially avoidable and partially sunk. For example, a new truck could be resold for a substantial portion of its purchase price but would lose some market value immediately after purchase. The portion of the new price that could not be recaptured is sunk and should not be considered in pricing decisions. Only the decline in the resale value of the truck is an avoidable cost of using it.

From a practical standpoint, the easiest way to identify the avoidable cost is to recognize that the cost of making a sale is always the current cost resulting from the sale, not costs that occurred in the past. What, for example, is the cost for an oil company to sell a gallon of gasoline at one of its company-owned stations? One might be inclined to say that it is the cost of the oil used to make the gasoline plus the cost of refining and distribution. Unfortunately, that view could lead refiners to make some costly pricing mistakes. Most oil company managers realize that the relevant cost for pricing gasoline is not the historical cost of buying oil and producing a gallon of gasoline, but rather the future cost of replacing the inventory when sales are made. Even LIFO (last-in, first-out) accounting can be misleading for companies that are drawing down large inventories. To account accurately for the effect of a sale on profitability, managers should adopt NIFO (next-in, first-out) accounting for managerial decision-making.<sup>4</sup>

The distinction between the historical cost of acquisition and the future cost of replacement is merely academic when supply costs are stable. It becomes very practical when costs rise or fall.<sup>5</sup> When the price of crude oil

rises, companies quickly raise prices, long before any gasoline made from the more expensive crude reaches the pump. Politicians and consumer advocates label this practice “price gouging,” since companies with large inventories of gasoline increase their reported profits by selling their gasoline at much higher prices than they paid to produce it. So what is the real incremental cost to the company of selling a gallon of gasoline?

Each gallon of gasoline sold requires the purchase of crude oil at the new, higher price for the company to maintain its gasoline inventory. If that price is not covered by revenue from sales of gasoline, the company suffers reduced cash flow from every sale. Even though the sales appear profitable from a historical cost standpoint, the company must add to its working capital (by borrowing money or by retaining a larger portion of earnings) to pay the new, higher cost of crude oil. Consequently the real “cash” cost of making a sale rises immediately by an amount equal to the increase in the replacement cost of crude oil.

What happens when crude oil prices decline? If a company with large inventories held its prices high until all inventories were sold, it would be undercut by any company with smaller inventories that could profitably take advantage of the lower cost of crude oil to gain market share. The company would see its sales, profits, and cash flow decline. Again, the intelligent company bases its prices on the replacement cost, not the historical cost, of its inventory. In historical terms, it reports a loss. However, that loss corresponds to an equal reduction in the cost of replacing its inventories with cheaper crude oil. Since the company simply reduces its operating capital by the amount of the reported loss, its cash flow remains unaffected by that “loss.”

The impact of sales on cash is usually a much better gauge of the incremental, avoidable profitability of a sale than the cost of any historical decisions enabling those sales.

## **UNDERSTANDING THE FINANCIAL IMPLICATIONS OF ALTERNATIVE PRICE LEVELS**

Far too often, price changes get made with little or no analysis of their likely financial impact on profitability. Instead, decisions are made to lower prices to protect sales or meet sales goals, and decisions are made to raise prices to recover costs. As a result, price reductions occur without consideration of whether the sales goal is appropriate. And opportunities to raise prices are missed because decision-makers are never confronted with the potential profits that could have been earned if they had acted.

The primary excuse for the failure to estimate and manage pricing for profitability is that it requires estimates of relevant internal costs and of the effect of price on external demand. We have described earlier in this chapter how it is possible to make roughly accurate estimates of relevant costs. We are also sympathetic to the challenge of estimating “demand price elasticities” precisely and cost-effectively, although the cost of doing so for frequently purchased consumer goods has declined immensely due to declines in the cost of technology and the willingness of retailers to sell detailed sales data by brand and package size.

For infrequently purchased products, for products new to the market, and for products where prices are negotiated with large buyers, information

about demand price elasticity is rarely precise enough to “optimize” the price. But however difficult it is to know price elasticity with any certainty, it will determine the difference in profitability that could be generated at different price levels. Even if one cannot possibly estimate demand elasticity with a high level of accuracy, it may still be possible to estimate the likelihood that it will be at least whatever it needs to be to prevent a price change from damaging profitability.

With an estimate of the minimum change in sales necessary to make a price change profitably—what we call the breakeven sales change—it is possible to bring qualitative judgment to bear by, for example, asking a sales or product manager whether she would prefer to retain the current sales goal and target price level, a lower price level with a higher sales goal, or a higher price level with a lower sales goal. It is also possible to track the effect of a price change on sales levels to determine quickly whether the change is meeting the minimum effects necessary for it to be profitable. While the resulting level of uncertainty may be uncomfortable, it is preferable to making decisions blindly or failing to make them out of fear. Over time, as managers learn to think in terms of managing pricing to achieve profit goals, rather than sales or cost-recovery goals, they either become increasingly comfortable incorporating qualitative judgments or they invest to gain more quantitative insight.

### **Evaluating the Potential Profitability of a Price Change**

The remainder of this chapter describes a simple, logically intuitive procedure to quantitatively evaluate the potential profitability of a price change. First, marketing or pricing managers must define a baseline against which any pricing alternative is to be compared. For example, they might compare the effects of a pending price change with the product’s current level of profitability, or perhaps with a hypothetical scenario that management is particularly interested in exploring. Second, they need to calculate an incremental “breakeven” point for the price change to determine the minimum, or “breakeven” sales response necessary to achieve at least as much profitability at the new price as at the baseline price. Finally, the managers must then decide whether they believe that the sales response will reach at least that breakeven level—a determination that can incorporate both quantitative and qualitative information.

The key to integrating costs and quantitatively assessing the consequences of a price change is the incremental breakeven formula. Although similar in form to the common breakeven points that managers use to evaluate investments, an incremental breakeven for pricing is quite different in practice. Rather than evaluating the sales required for a product to achieve overall profitability, which depends on many factors other than price, incremental breakeven analysis focuses on the incremental effect on profitability of a price change. Consequently, managers start from a baseline then ask whether a change in price could improve the situation. More precisely, they ask:

- **How much would sales volume have to increase to make a price reduction profitable?**

Managers advocating for a lower price can then be asked for evidence and commitment that the higher volume can be achieved and for a credible plan to achieve it.

• **How much would sales volume have to decline to make a price increase unprofitable?**

Managers advocating for a higher price can then be asked for evidence and commitment that sufficient volume can be retained at higher prices and for a credible plan to justify those prices to customers.

The sample problems in this chapter introduce four alternative formulas which, under different circumstances, would be used to answer these questions. To introduce and illustrate the application of these formulas, we will describe the experience of Westside Manufacturing, a company that makes high-quality pillows for sale through specialty bedding and dry-cleaning stores. Although the examples are, for simplicity, based on a hypothetical small manufacturing business, the equations are equally applicable for analyzing any size or type of business that does not negotiate a unique price for each customer.<sup>6</sup> If customers are effectively segmented for pricing, the formulas apply to price levels within a segment.

Following are Westside Manufacturing's income and costs for a typical month:

Sales	4,000 units
Wholesale price	\$10.00 per unit
Revenue	\$40,000
Variable costs	\$5.50 per unit
Fixed costs	\$15,000

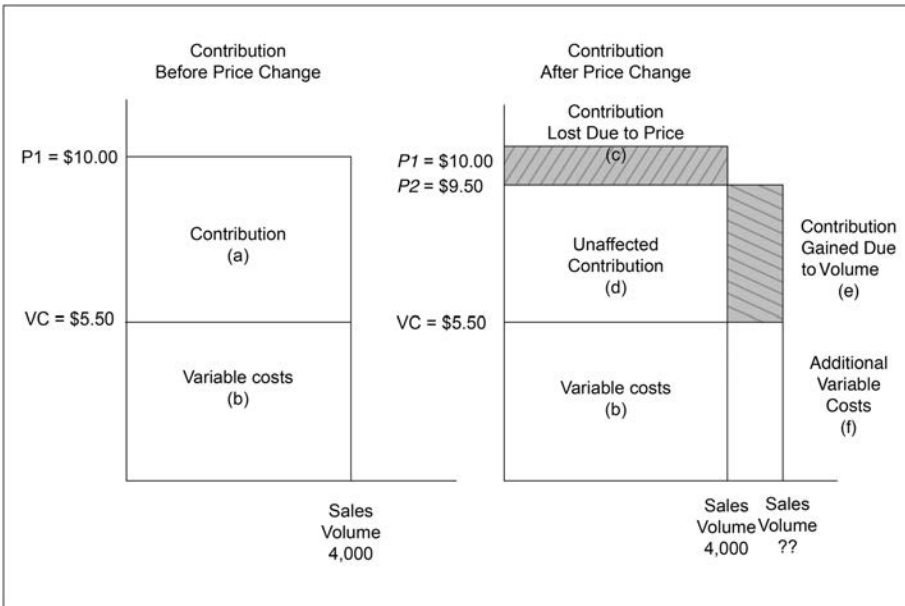
Westside is considering a 5 percent price cut, which it believes would make it more competitive with alternative suppliers, enabling it to further increase its sales. Management believes that the company would need to incur no additional fixed costs as a result of this pricing decision. How much would sales have to increase for this company to profit from a 5 percent cut?

To answer Westside's question, we calculate the breakeven sales change. This, for a price cut, is the minimum increase in sales volume necessary for the price cut to produce an increase in contribution relative to the baseline. Fortunately, making this calculation is simple, as will be shown shortly. First, however, it may be more intuitive to illustrate the analysis graphically (see Exhibit 9-2). In this exhibit, it is easy to visualize the financial trade-offs involved in the proposed price change. Before the price change, Westside receives a price of \$10 per unit and sells 4,000 units, resulting in total revenues of \$40,000 (the total area of boxes (a) and (b)). From this Westside pays variable costs of \$5.50 per unit, for a total of \$22,000 (box b). Therefore, before the price change, total contribution is \$40,000 minus \$22,000, or \$18,000 (box a). In order for the proposed price cut to be profitable, contribution after the price cut must exceed \$18,000.

After the 5 percent price reduction, Westside receives a price of only \$9.50 per unit, or \$0.50 less contribution per unit. Since it normally sells 4,000 units, Westside would expect to lose \$2,000 in total contribution (box c) on sales that it could have made at a higher price. This is called the price effect. Fortunately, the price cut can be expected to increase sales volume.

The contribution earned from that increased volume, the volume effect (box e), is unknown. The price reduction will be profitable, however, when the volume effect (the area of box e) exceeds the price effect (the area of box c).

**EXHIBIT 9-2 Finding the Breakeven Sales Change**



That is, in order for the price change to be profitable, the gain in contribution resulting from the change in sales volume must be greater than the loss in contribution resulting from the change in price. The purpose of breakeven analysis is to calculate the minimum sales volume necessary for the volume effect (box e) to balance the price effect (box c). When sales exceed that amount, the price cut is profitable.

So, how do we determine the breakeven sales change? We know that the lost contribution due to the price effect (box c) is \$2,000, which means that the gain in contribution due to the volume effect (box e) must be at least \$2,000 for the price cut to be profitable. Since each new unit sold following the price cut results in \$4 in contribution ( $\$9.50 - \$5.50 = \$4$ ), Westside must sell at least an additional 500 units (\$2,000 divided by \$4 per unit) to make the price cut profitable.

The minimum percent change in sales volume necessary to maintain at least the same contribution following a price change can be directly calculated by using the following simple formula (see Appendix 9B for derivation):

$$\frac{-\Delta P}{CM + \Delta P}$$

In this equation, the price change and contribution margin may be stated in dollars, percentages, or decimals (as long as their use is consistent within the same formula). The result of this formula is a decimal ratio that, when multiplied by 100, is the percent change in unit sales necessary to maintain the same level of contribution after the price change. The minus sign in the numerator indicates a trade-off between price and volume: Price cuts increase the volume and price increases reduce the volume necessary to achieve any particular level of profitability. The larger the price change—or the smaller the

contribution margin—the greater the volume change necessary to generate at least as much contribution as before.

Assume for the moment that there are no incremental fixed costs in implementing Westside's proposed 5 percent price cut. For convenience, we make our calculations in dollars (rather than in percentages or decimals). The contribution margin is:

$$\text{\$CM} = \$10.00 - \$5.50 = \$4.50$$

Given this, we can easily calculate the breakeven sales change as follows:

$$\% \text{ Breakeven sales change} = \frac{-(-\$0.50)}{\$4.50 + (-\$0.50)} = 0.125 \text{ or } 12.5\%$$

Thus, the price cut is profitable only if sales volume increases by more than 12.5 percent. Relative to its current level of sales volume, Westside would have to sell at least 500 additional units to maintain the same level of profitability it had prior to the price cut, as shown below:

$$\text{Unit breakeven sales change} = 0.125 \times 4,000 = 500 \text{ units}$$

If the actual increase in sales volume exceeds the breakeven sales change, the price cut will be profitable. If the actual increase in sales volume falls short of the breakeven sales change, the price change will be unprofitable. If Westside's sales increase as a result of the price change by more than the breakeven amount—say, by an additional 550 units—Westside will realize a gain in profit contribution. If, however, Westside sells only an additional 450 units as a result of the price cut, it will suffer a loss in contribution.

Once we have the breakeven sales change and the profit contribution, calculating the precise change in contribution associated with any change in volume is straightforward: It is simply the difference between the actual sales volume and the breakeven sales volume, times the new contribution margin (calculated after the price change). For Westside's 550-unit and 450-unit volume changes, the change in contribution equals the following:

$$(550 - 500) \times \$4 = \$200$$

$$(450 - 500) \times \$4 = -\$200$$

The \$4 in these formulas is the new contribution margin (\$9.50 - \$5.50). You might have noticed that the denominator of the percent breakeven formula is also the new contribution margin.

We have illustrated breakeven analysis using Westside's proposed 5 percent price cut. The logic is exactly the same for a price increase. Since a price increase results in a gain in unit contribution, Westside can tolerate some reduction in sales volume and still increase its profitability. How much of a reduction in sales volume can Westside tolerate before the price increase becomes unprofitable? The answer is this: Until the loss in contribution due to reduced sales volume is exactly offset by the gain in contribution due to the price increase. As an exercise, calculate how much sales Westside could afford to lose before a 5 percent price increase becomes unprofitable.

It is important to note that the calculation resulting from the breakeven sales change formula is expressed as the percent change in unit volume required to break even, not the percent change in monetary sales (for example,

the percent change in dollar sales) required to break even. In the case of a price cut, the percent breakeven sales change in units necessary to justify the price cut is larger than the percent breakeven sales change in sales dollars because the price is now lower.

To convert from the percent breakeven sales change in units to the percent breakeven sales change in dollars, you can apply the following simple conversion formula:

$$\% \text{ BE}(\$) = \% \text{ BE}(\text{units}) + \% \text{ Price change} [1 + \% \text{ BE}(\text{units})]$$

For example, for Westside's proposed 5 percent price cut above, the percent breakeven sales change in unit volume terms was 12.5 percent. What is the corresponding percent breakeven sales change in dollar sales terms? The answer is calculated as follows:

$$\begin{aligned} \% \text{ BE}(\$) &= 0.125 + (-0.05)(1 + 0.125) \\ &= 6.88\% \end{aligned}$$

Thus, to break even on the proposed 5 percent price cut, Westside would have to increase its total dollar sales by 6.88 percent, which is exactly equivalent to a 12.5 percent increase in unit volume.

## **BREAKEVEN SALES INCORPORATING A CHANGE IN VARIABLE COSTS**

Thus far, we have dealt only with price changes that involve no changes in unit variable costs or in fixed costs. Often, however, price changes are made as part of a marketing plan involving cost changes as well. A price increase may be made along with product improvements that increase variable costs, or a price cut might be made to push the product with lower variable selling costs. Expenditures that represent fixed costs might also change along with a price change. We need to consider these two types of incremental costs when calculating the price–volume trade-off necessary for making pricing decisions profitable. We begin this section by integrating changes in variable cost into the financial analysis. In the next section, we do the same with changes in fixed costs.

Fortunately, dealing with a change in variable cost involves only a simple generalization of the breakeven sales change formula already introduced. To illustrate, we return to Westside Manufacturing's proposed 5 percent price cut. Suppose that Westside's price cut is accompanied by a reduction in variable cost of \$0.22 per pillow, resulting from Westside's decision to use a new synthetic filler to replace the goose feathers it currently uses. Variable costs are \$5.50 before the price change and \$5.28 after the price change. By how much would sales volume have to increase to ensure that the proposed price cut is profitable?

When variable costs change along with the price change, managers simply need to subtract the cost change from the price change before doing the breakeven sales change calculation. Unlike the case of a simple price change, managers must state the terms on the right-hand side of the equation in currency units (dollars, euros, yen, and so forth) rather than in percentage changes:

$$\% \text{ Breakeven sales change} = \frac{-(-\Delta P - \Delta C)}{\$CM + (\Delta P - \Delta C)}$$

In this equation  $\Delta$  indicates “change in,”  $P$  = price, and  $C$  = cost. Note that when the change in variable cost ( $\Delta C$ ) is zero, this equation is identical to the breakeven formula previously presented. Note also that the term  $(\Delta P - \Delta C)$  is the change in the contribution margin and that the denominator (the original contribution margin plus the change) is the new contribution margin. Thus, the general form of the breakeven pricing equation is simply written as follows:

$$\% \text{ Breakeven sales change} = \frac{-\Delta CM}{\text{New } \$CM}$$

For Westside, the next step in using this equation to evaluate the proposed price change is to calculate the change in contribution margin. Recall that the change in price is  $\$9.50 - \$10$  (or  $-\$0.50$ ). The change in variable costs is  $-\$0.22$ . Thus, the change in contribution can be calculated as follows:

$$\Delta CM = (\Delta P - \Delta C) = -\$0.50 - (-\$0.22) = -\$0.28$$

Previous calculations illustrated that the contribution margin before the price change is  $\$4.50$ . We can, therefore, calculate the breakeven sales change as follows:

$$\% \text{ Breakeven sales change} = \frac{-(-\$0.28)}{\$4.50 + (-\$0.28)} = 0.066, \text{ or } +6.6\%$$

In units, the breakeven sales change is  $0.066 \times 4,000$  units, or 265 units. Given management’s projection of a  $\$0.22$  reduction in variable costs, the price cut can be profitable only if management believes that sales volume will increase by more than 6.6 percent, or 265 units. Note that this increase is substantially less than the required sales increase (12.5 percent) calculated before assuming a reduction in variable cost. Why does a variable cost reduction lower the necessary breakeven sales change? Because it increases the contribution margin earned on each sale, making it possible to recover the contribution lost due to the price effect with less additional volume. This relationship is illustrated graphically for Westside Manufacturing in Exhibit 9-2. Westside can realize a gain in contribution due to the change in variable costs (box f), in addition to a gain in contribution due to any increase in sales volume.

## BREAKEVEN SALES ANALYSIS FOR REACTIVE PRICING

So far we have restricted our discussion to proactive price changes, where the firm contemplates initiating a price change ahead of its competitors. The goal of such a change is to enhance profitability. Often, however, a company initiates reactive price changes when it is confronted with a competitor’s price change that will impact the former’s sales unless it responds. The key uncertainty involved in analyzing a reactive price change is the sales loss the company will suffer if it fails to meet a competitor’s price cut, or the sales gain the company will achieve if it fails to follow a competitor’s price increase. Is the



potential sales loss sufficient to justify cutting price to protect sales volume? Or is the potential sales gain enough to justify forgoing the opportunity for a cooperative price increase? A slightly different form of the breakeven sales formula is used to analyze such situations.

To calculate the breakeven sales changes for a reactive price change, we need to address the following key questions: (i) What is the minimum potential sales loss that justifies meeting a lower competitive price? (ii) What is the minimum potential sales gain that justifies not following a competitive price increase? The basic formula for these calculations is this:

$$\text{Reactive \% breakeven sales change} = \frac{\text{Change in price}}{\text{Contribution margin}}$$

To illustrate, suppose that Westside's principal competitor, Eastside, has just reduced its prices by 15 percent. If Westside's customers are highly loyal, it probably would not pay for Westside to match this cut. If, on the other hand, customers are quite price sensitive, Westside may have to match this price cut to minimize the damage. What is the minimum potential loss in sales volume that justifies meeting Eastside's price cut? The answer (calculated in percentage terms) is as follows:<sup>7</sup>

$$\text{Reactive \% breakeven sales change} = \frac{-15\%}{45\%} = -0.333\%, \text{ or } -33.3\%$$

Thus, if Westside expects sales volume to fall by more than 33 percent as a result of Eastside's new price, it would be less damaging to Westside's profitability to match the price cut than to lose sales. On the other hand, if Westside expects that sales volume will fall by less than 33 percent, it would be less damaging to Westside's profitability to let Eastside take the sales than it would be to cut price to meet this challenge.

This analysis has focused on minimizing losses in the face of a competitor's proactive price reduction. However, the procedure for analysis is the same when a competitor suddenly raises its prices. Suppose, for example, that Eastside raises its price by 15 percent. Westside might be tempted to match Eastside's price increase. If, however, Westside does not respond to Eastside's new price, Westside will likely gain additional sales volume as Eastside's customers switch to Westside. How much of a gain in sales volume must be realized in order for no price reaction to be more profitable than a reactive price increase? The answer is similarly found using the breakeven sales change formula with a reactive price change. If Westside is confident that sales volume will increase by more than 33.3 percent if it does not react, a non-reactive price policy would be more profitable. If Westside's management does not expect sales volume to increase by 33.3 percent, a reactive price increase would be more profitable.

Of course, the competitive analysis we have done is, by itself, overly simplistic. Eastside might be tempted to attack Westside's other markets if Westside does not respond to Eastside's price cut. And Westside's not matching Eastside's price increase might force Eastside to roll back its prices. These long-run strategic concerns might outweigh the short-term profit implications of a decision to react. In order to make such a judgment, however, the company must first determine the short-term profit

implications. Sometimes long-term competitive strategies are not worth the short-term cost.

### MAPPING A RANGE OF POTENTIAL FINANCIAL OUTCOMES

To grasp fully the potential impact of a price change, especially when the decision involves incremental changes in fixed costs, it is useful to calculate the profit impact for a range of potential sales changes and to summarize them with a breakeven table and chart. Doing so is relatively simple after having calculated the basic breakeven sales change. Using this calculation, one can then simulate “what if” scenarios that include different levels of actual sales volume following the price change.

The top half of Exhibit 9-3 is a summary of the basic breakeven sales change analysis for Westside’s 5 percent price cut, with one column summarizing the level of contribution before the price change (the column labeled

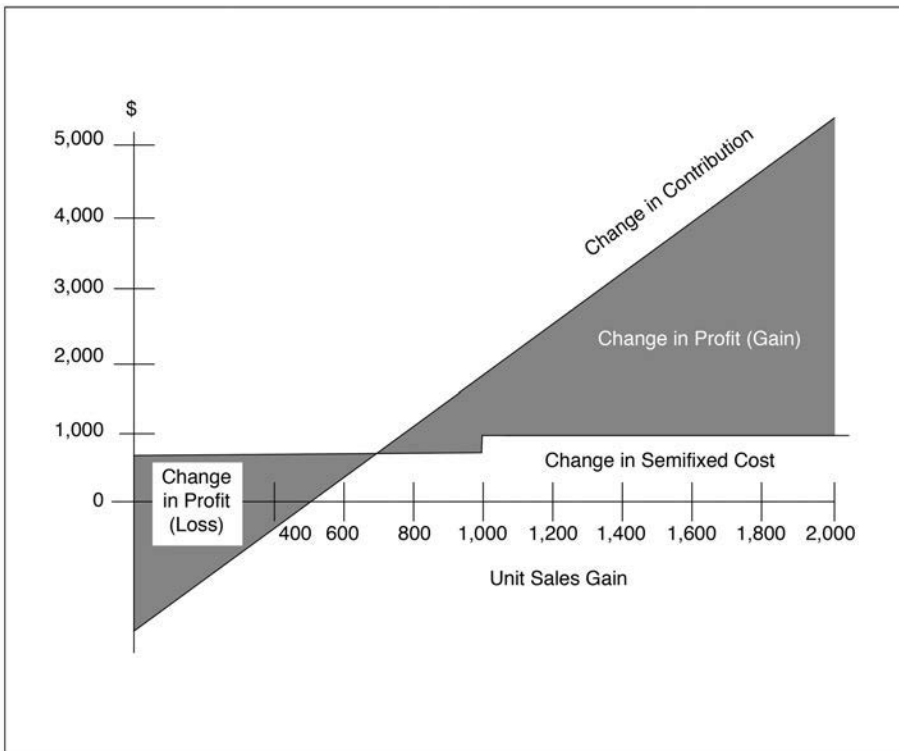
**EXHIBIT 9-3 Breakeven Sales Analysis and Simulated Scenarios: Westside Manufacturing’s Proposed 5 Percent Price Reduction**

Breakeven Sales Change Summary		Baseline	Proposed Price Change			
Price/unit		\$10.00			\$9.50	
% Price change					–5%	
\$ Contribution/unit		\$4.50			\$4.00	
% Contribution		45%			42%	
Breakeven sales change (%)					12.5%	
Breakeven sales change (units)					500	
Total sales volume (units)		4,000			4,500	
Total contribution		\$18,000			\$18,000	
Breakeven Sales Change Simulated Scenarios						
	% Change in Actual Sales Volume	Unit Change in Actual Sales Volume	Change in Contribution After Price Change	Incremental Fixed Costs	Total Change in Profit After Price Change	
Simulated Scenarios	1	0.0	0	–2000	800	–2,800
	2	5.0	200	–1200	800	–2,000
	3	10.0	400	–400	800	–1,200
	4	12.5	500	0	800	–800
	5	17.5	700	800	800	0
	6	20.0	800	1,200	800	400
	7	25.0	1,000	2,000	800	1,200
	8	30.0	1,200	2,800	1,600	1,200
	9	40.0	1,600	4,400	1,600	2,800

“Baseline”) and one column summarizing the contribution after the price change (the column labeled “Proposed Price Change”). The bottom half of Exhibit 9-3 summarizes nine “what if” scenarios, showing the profitability associated with changes in sales volume ranging from 0 to 40 percent given incremental semifixed costs of \$800 per 1,000 units. Columns 1 and 2 show the actual change in volume for each scenario. Columns 3 through 5 calculate the change in profit that results from each change in sales.

To illustrate how these breakeven sales-change scenarios are calculated, let us focus for a moment on scenario 6, where actual sales volume is projected to increase 20 percent. A 20 percent change in actual sales volume is equivalent to an 800-unit change in actual sales volume, since 800 units is 20 percent of the baseline sales volume of 4,000 units. How does this increase in sales translate into changes in profitability? Column 3 shows that a 20 percent (or an 800-unit) increase in sales volume results in a change in contribution after the price change of \$1,200. This is calculated by taking the difference between the actual unit sales change (800 units) and the breakeven sales change shown in the top half of Exhibit 9-3 (500 units) and multiplying by the new contribution margin after the price change (\$4). However, the calculations made in column 3 do not take into account the incremental fixed costs required to implement the price change (shown in column 4). Column 5 shows the change in profit after subtracting the change in fixed costs from the incremental contribution generated.

**EXHIBIT 9-4 Breakeven Analysis of a Price Change**



Where there is inadequate incremental contribution to cover the incremental fixed costs, as in scenarios 1 through 4, the change in profit is negative. Scenario 5 illustrates the breakeven sales change. Scenarios 6 through 9 are all profitable scenarios, since they result in greater profit after the price change than before.

The interrelationships among contribution, incremental fixed costs, and the sales change that results from a price change are often easier to comprehend with a graph. Exhibit 9-4 illustrates the relationships among the data in Exhibit 9-3.

## BREAKEVEN SALES CURVES

So far we have discussed breakeven sales analysis in terms of a single change in price and its resultant breakeven sales change. In the example above, Westside Manufacturing considered a 5 percent price reduction, which we calculated would require a 17.5 percent increase in sales volume to achieve enough incremental contribution to cover the incremental fixed cost. (As shown in Exhibit 9-3, scenario 5.) However, what if the company wants to consider a range of potential price changes? How can we use breakeven sales analysis to consider alternative price changes simultaneously? The answer is by charting a breakeven sales curve, which summarizes the results of a series of breakeven sales analyses for different price changes.

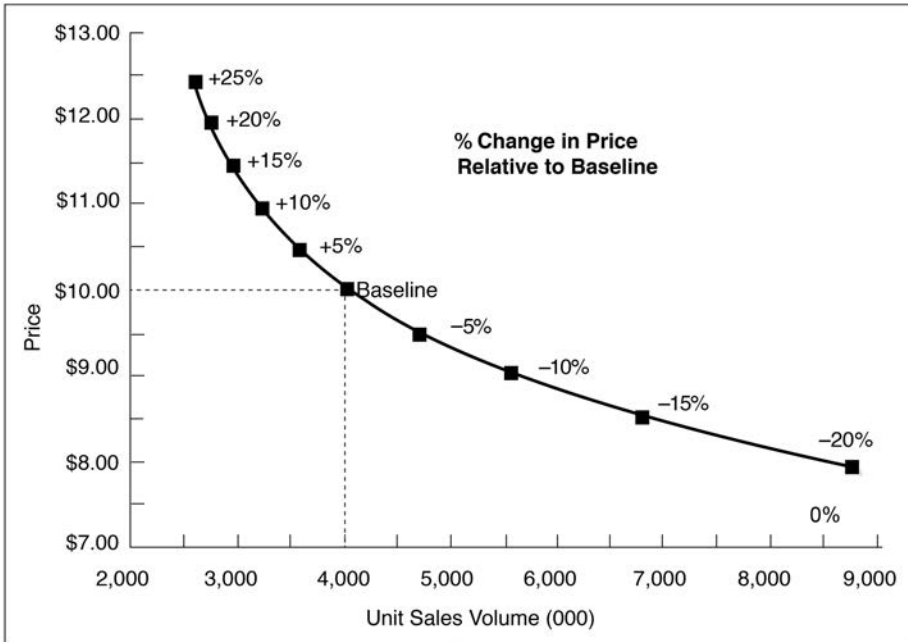
Constructing breakeven sales curves requires doing a series of “what if” analyses, similar to the simulated scenarios discussed in the last section. Exhibits 9-5 and 9-6 show numerically and graphically a breakeven sales curve for Westside Manufacturing, with simulated scenarios of price changes ranging from +25 percent to -20 percent. Note in Exhibit 9-6 that the vertical axis shows different price levels for the product, and the horizontal axis shows a volume level associated with each price level. Each point on the curve represents the sales volume necessary to achieve as much profit after the price change as would be earned at the baseline price. For example, Westside’s baseline price is \$10 per unit, and baseline sales volume is 4,000 units. If, however, Westside cuts the price by 15 percent to \$8.50, its sales volume would have to increase 70 percent to 6,800 units to achieve the same profitability, to cover both the decrease in contribution as well as the incremental fixed costs. Conversely, if Westside increases its price by 15 percent to \$11.50, its sales volume could decrease 25 percent to 3,000 units and still allow equal profitability.

The breakeven sales curve is a simple, yet powerful tool for synthesizing and evaluating the dynamics behind the profitability of potential price changes. It presents succinctly and visually the dividing line that separates profitable price decisions from unprofitable ones. Profitable price decisions are those that result in sales volumes in the area to the right of the curve. Unprofitable price decisions are those that result in sales volumes in the area to the left of the curve. What is the logic behind this? Recall the previous discussion of what happens before and after a price change. The breakeven sales curve represents those sales volume levels associated with their respective levels of price, where the company will make just as much net contribution after the price change as it made before the price change. If the company’s sales

**EXHIBIT 9-5 Breakeven Sales Curve Calculations (with Incremental Fixed Costs)**

Price Change	Price	Breakeven Sales Change	Unit Breakeven Sales Change	Unit Breakeven Sales Volume	Incremental Fixed Costs (IFC)	Breakeven Sales Change with IFC	Unit Breakeven Sales Change with IFC
25%	\$12.50	-36%	(1,428)	2,571	-	-36%	2,571
20%	\$12.00	-31%	(1,251)	2,769	-	-31%	2,769
15%	\$11.50	-25%	(1,000)	3,000	-	-25%	3,000
10%	\$11.00	-18%	(727)	3,273	-	-18%	3,273
5%	\$10.50	-10%	(400)	3,600	-	-10%	3,600
0%	\$10.00	0%	-	4,000	-	0%	4,000
-5%	\$9.50	13%	500	4,500	\$800	18%	4,700
-10%	\$9.00	29%	1,143	5,143	\$1,600	40%	5,600
-15%	\$8.50	50%	2,000	6,000	\$2,400	70%	6,800
-20%	\$8.00	80%	3,200	7,200	\$4,000	120%	8,800

**EXHIBIT 9-6 Breakeven Sales Curve: Trade-Off Between Price and Sales Volume Required for Constant Profitability**



volume after the price change is greater than the breakeven sales volume (that is, actual sales volume is to the right of the curve), the price change will add to profitability. If the company's sales volume after the price change is less than the breakeven sales volume (that is, the area to the left of the curve), the price change will be unprofitable. For example, for Westside a price of \$8.50 requires a sales volume of at least 6,800 units to achieve a net gain in profitability. If, after reducing its price to \$8.50, management believes it will sell more than 6,800 units (a point to the right of the curve), then a decision to implement a price of \$8.50 per unit would be profitable.

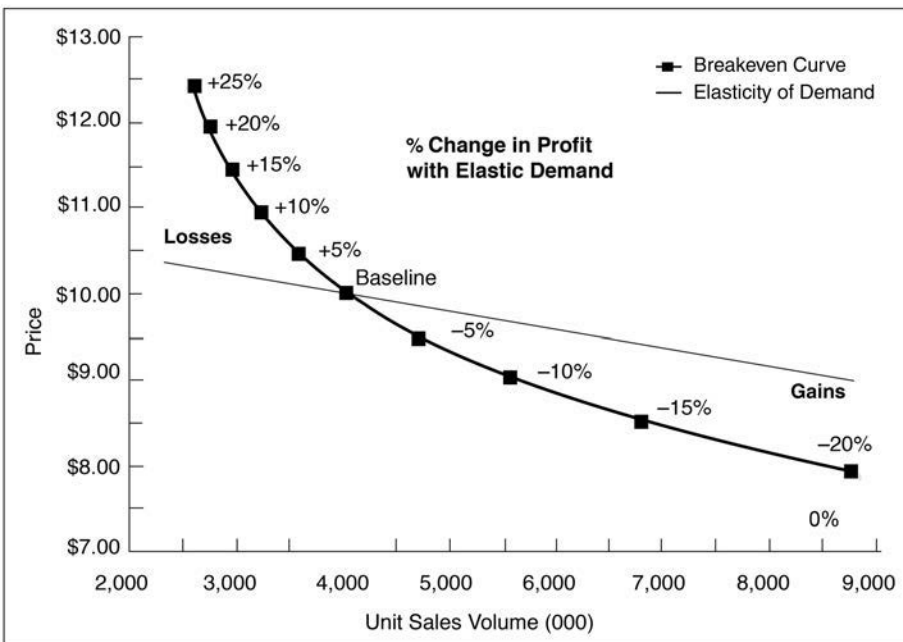
The breakeven sales curve also clearly illustrates the relationship between the breakeven approach to pricing and the economic concept of price elasticity. Note that the breakeven sales curve looks suspiciously like the traditional downward-sloping demand curve in economic theory, in which different levels of price (on the vertical axis) are associated with different levels of quantity demanded (on the horizontal axis). On a traditional demand curve, the slope between any two points on the curve determines the elasticity of demand, a measure of price sensitivity expressed as the percent change in quantity demanded for a given percent change in price. An economist who knew the shape of such a curve could calculate the profit-maximizing price.

Unfortunately, few firms use economic theory to set price because of the unrealistic expectation that they first have to know their demand curve, or at least the demand elasticity around the current price level. To overcome this shortcoming, we have addressed the problem in reverse order. Rather than

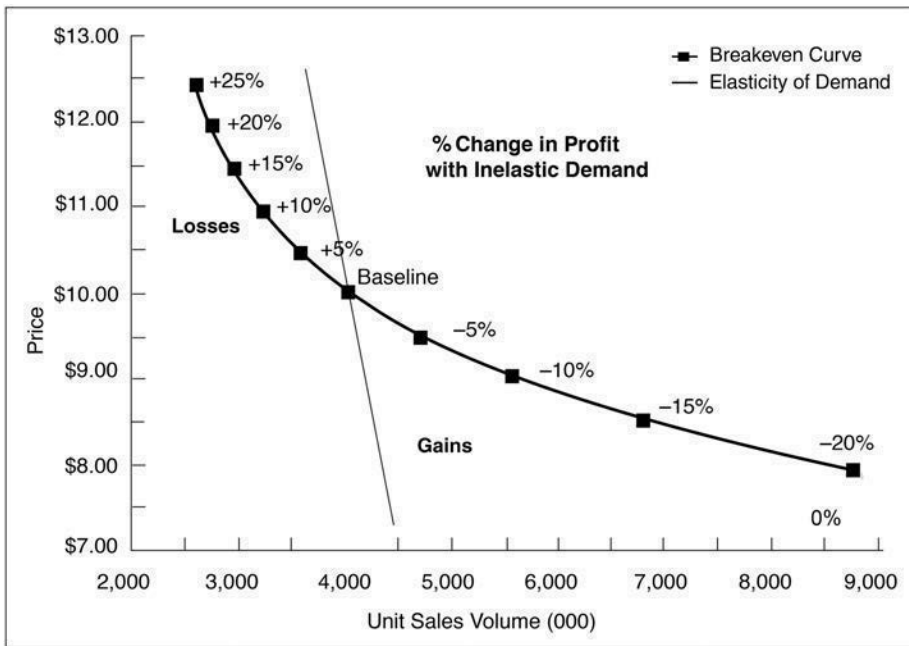
asking, “What is the firm’s demand elasticity?” we ask, instead, “What is the minimum demand elasticity required?” to justify a particular pricing decision. Breakeven sales analysis calculates the minimum or maximum demand elasticity required to profit from a particular pricing decision. The breakeven sales curve illustrates a set of minimum elasticities necessary to make a price cut profitable, or the maximum elasticity tolerable to make a price increase profitable. One is then led to ask whether the level of price sensitivity in the market is greater or less than the level of price sensitivity required by the firm’s cost and margin structure.

This relationship between the breakeven sales curve and the demand curve is illustrated in Exhibits 9-7 and 9-8, where hypothetical demand curves are shown with Westside’s breakeven sales curve. If demand is more elastic, as in Exhibit 9-7, price reductions relative to the baseline price result in gains in profitability, and price increases result in losses in profitability. If demand is less elastic, as in Exhibit 9-8, price increases relative to the baseline price result in gains in profitability, and price reductions result in losses in profitability. Although few, if any, managers actually know the demand curve for their product, we have encountered many who can comfortably make judgments about whether it is more or less elastic than is required by the breakeven sales curve. Moreover, although we have not found any market research technique that can estimate a demand curve with great precision, we have seen many (described in Chapter 8 on measuring price sensitivity) that could enable management to confidently accept or reject a particular breakeven sales level as achievable.

**EXHIBIT 9-7 Breakeven Sales Curve: Relationship Between Price Elasticity of Demand and Profitability**



**EXHIBIT 9-8 Breakeven Sales Curve: Relationship Between Price Elasticity of Demand and Profitability: Changes in Profit with More Inelastic Demand**



### WATCHING YOUR BASELINE

In the preceding examples, the level of baseline sales from which we calculated breakeven sales changes was assumed to be the current level. For simplicity, we assumed a static market. In many cases, however, sales grow or decline even if price remains constant. As a result, the baseline for calculating breakeven sales changes is not necessarily the current level of sales. Rather, it is the level that would be expected to occur if no price change were made.

Consider, for example, a company in a high-growth industry with current sales of 2,000 units on which it earns a contribution margin of 55 percent. If the company does not change its price, management expects that sales will increase by 20 percent (the projected growth of total industry sales) to 2,400 units. However, management is considering a 5 percent price cut in an attempt to increase the company's market share. The price cut would be accompanied by an advertising campaign intended to heighten consumer awareness of the change. The campaign would take time to design, delaying implementation of the price change until next year. The initial sales level for the constant contribution analysis, therefore, would be the projected sales in the future, or 2,400 units. Consequently, the breakeven sales change would be calculated as follows:

$$\% \text{ Breakeven sales change} = \frac{-(-5\%)}{55\% + (-5\%)} = 0.10\%, \text{ or } 10\%$$

Or:

$$0.10 \times 2,400 = 240 \text{ units}$$



If the current sales level is used in the calculation, the unit breakeven sales change is calculated as 200 units, understating the change required by 40 units.

## **COVERING NON-INCREMENTAL FIXED AND SUNK COSTS**

By this point, one might be wondering about the non-incremental fixed and sunk costs that have been ignored when analyzing pricing decisions. A company's goal must surely be to cover all of its costs, including all fixed and sunk costs, or it will soon go bankrupt. This concern is justified and is central to pricing for profit, but it is misguided when applied to justify higher prices.

Note that the goal in price setting is to determine the price level that maximizes a product's profit contribution. Profit contribution, you will recall, is the income remaining after all incremental, avoidable costs have been covered. It is money available to cover non-incremental fixed and sunk costs with, ideally, a lot left over for profit. When managers consider only the incremental, avoidable costs in making pricing decisions, they are not saying that other costs are unimportant. They simply realize that the level of those costs is irrelevant to decisions about which price will generate the most money to cover them. Since non-incremental fixed and sunk costs do not change with a pricing decision, they do not affect the relative profitability of one price versus an alternative. Consequently, consideration of them simply clouds the issue of which price level will generate the most profit.

All costs are important to profitability since they all, regardless of how they are classified, have to be covered before profits are earned. At some point, all costs must be considered. What distinguishes value-based pricing from cost-driven pricing is when they are considered. A major reason that this approach to pricing is more profitable than cost-driven pricing is that it encourages managers to think about costs when they can still do something about them. Every cost is incremental and avoidable at some time. For example, even the cost of product development and design, although it is fixed and sunk by the time the first unit is sold, is incremental and avoidable before the design process begins. The same is true for other costs. The key to profitable pricing is to recognize that customers in the marketplace, not costs, determine what a product can sell for. Consequently, before incurring any costs, managers need to estimate how much customers can be convinced to pay for an intended product, given their alternatives. Management must then decide, while all costs are still avoidable, what costs they can profitably incur given the expected revenue.

Of course, no one has perfect foresight. Managers must make decisions to incur costs without knowing for certain how the market will respond and what alternatives competitors will offer. When their expectations are accurate, the market rewards them with sales at the prices they expected, enabling them to cover all costs and to earn a profit. When they overestimate a product's value, profit contribution may prove inadequate to cover all the costs incurred. In that case, a good manager seeks to minimize the loss. This can be done only by maximizing profit contribution (revenue minus incremental, avoidable costs). Short-sighted efforts to build non-incremental fixed and sunk costs into a price to justify regretted investments made in the past will only reduce volume further, making the losses worse.

## Summary

The profitability of pricing decisions depends largely on the product's incremental cost structure and the market's response to the change in price. We discuss the importance of identifying the costs that are most relevant to the profitability of a pricing decision, namely, incremental and avoidable costs. Having identified the right costs, one must also understand how to use them. The most important reason to identify costs correctly is to be able to calculate an accurate

contribution margin. An accurate contribution margin enables management to determine the amount by which sales must increase following a price cut, or by how little they may decline following a price increase for any price change to at least maintain the profit level that would have been achieved without the change. Understanding how changes in sales will affect a product's profitability is the first step in pricing the product effectively.

## Notes

1. Elizabeth Drake, "F. Scott Fitzgerald: 10 Quotes on His Birthday," *The Christian Science Monitor*, September 23, 2012. Accessed April 21, 2017 at [www.csmonitor.com/Books/2012/0923/F.-Scott-Fitzgerald-10-quotes-on-his-birthday/A-smile](http://www.csmonitor.com/Books/2012/0923/F.-Scott-Fitzgerald-10-quotes-on-his-birthday/A-smile).
2. Beware of costs classified as "overhead." Often costs end up in that classification, even though they are clearly variable, simply because "overhead" is a convenient dumping ground for costs that one has not associated with the products that caused them to be incurred. A clue to the existence of such a misclassification is the incongruous term "variable overhead."
3. Most economics and accounting texts equate avoidable costs with variable costs, and sunk costs with fixed costs, for theoretical convenience. Unfortunately, those texts usually fail to explain adequately that this is an assumption rather than a necessarily true statement. Consequently, many students come away from related courses with the idea that a firm should always continue producing if price at least covers variable costs. That rule is correct only when the variable costs are entirely sunk. In many industries (for example, airlines) the fixed costs are often avoidable, since the assets can be readily sold. Whenever the fixed costs are avoidable if a decision is not made to produce a product, or to produce it in as large a quantity, they should be considered when deciding whether a price is adequate to serve a market.
4. LIFO and FIFO costs are the same in any accounting period when a firm makes a net addition to its inventory. In periods during which a firm draws down its inventory, LIFO will understate costs after the firm uses up the portion of its inventory values at current prices and begins "dipping into old layers" of inventory valued at unrealistic past prices.
5. Sam Peltzman, "Prices Rise Faster Than They Fall," *Journal of Political Economy* 108(3) (June 2000), pp. 466–502.
6. The rule for analyzing the profitability of independently negotiated prices is simple: A price is profitable as long as it covers incremental costs. Unfortunately, many managers make the mistake of applying that rule when prices are not independent across customers. They assume, mistakenly, that because they negotiate prices individually, they are negotiating them independently. In fact, because customers talk to one another and learn the

prices that others pay, prices are rarely independent. The low price you charge to one customer will eventually depress the prices that you can charge to others.

7. This equation can also accommodate a change in variable cost by

simply replacing the “change in price” with the “change in price minus the change in variable cost.” One can also add to it the breakeven necessary to cover a change in fixed costs.

## Appendix 9A

# CASE STUDY: RITTER & SONS CONSIDERATION OF PRICE CHANGES FOR PROFIT IMPROVEMENT

Ritter & Sons, an illustrative company, is a wholesale producer of potted plants and cut flowers. Ritter's most popular product is potted chrysanthemums (mums), which are particularly in demand around certain holidays, especially Mother's Day, Easter, and Memorial Day, but they maintain a high level of sales throughout the year. Exhibit 9A-1 shows Ritter's revenues, costs, and sales from mums for a recent fiscal year. After attending a seminar on pricing, the company's chief financial officer, Don Ritter, wondered whether this product might somehow be priced more profitably. He then began a

serious examination of the effect of raising and lowering the wholesale price of mums from the current price of \$3.85 per unit.

Ritter's first step was to identify the relevant cost and contribution margin for mums. Looking only at the data in Exhibit 9A-1, Don was somewhat uncertain how to proceed. He reasoned that the costs of the cuttings, shipping, packaging, and pottery were clearly incremental and avoidable and that the cost of administrative overhead was fixed. He was far less certain about labor and the capital cost of the greenhouses. Some of Ritter's work

**EXHIBIT 9A-1 Cost Projection for Proposed Crop of Mums**

<b>Crop Preparer: DR</b>	<b>6" Mums Total</b>	<b>Per Unit</b>
<b>Unit sales</b>	86,250	1
<i>Revenue</i>	<i>\$332,063</i>	<i>\$3.85</i>
Cost of cuttings	34,500	0.40
<i>Gross margin</i>	<i>297,563</i>	<i>3.45</i>
Labor	51,850	0.60
Shipping	26,563	0.31
Package foil	9,056	0.10
Package sleeve	4,312	0.05
Package carton	4,399	0.05
Pottery	14,663	0.17
Capital cost allocation	66,686	0.77
Overhead allocation	73,320	0.85
Operating profit	\$46,714	\$0.54

force consisted of long-time employees, whose knowledge of planting techniques was highly valuable. It would not be practical to lay them off, even if they were not needed during certain seasons. Most production employees, however, were seasonal laborers who were hired during peak seasons and who found work elsewhere in the off-season.

After consulting with the production manager for potted plants, Don concluded that about \$7,000 of the labor cost of mums was fixed. The remaining \$44,850 (or \$0.52 per unit) was variable and thus relevant to the pricing decision.

Don also wondered how he should treat the capital cost of the greenhouses. He was sure that the company policy of allocating capital cost (interest and depreciation) equally to every plant sold was not correct. However, when Don suggested to his brother Paul, the company's president, that since these costs were sunk, they should be entirely ignored in pricing, Paul found the suggestion unsettling. He pointed out that Ritter used all of its greenhouse capacity in the peak season, that it had expanded its capacity in recent years, and that it planned further expansions in the coming year. Unless the price of mums reflected the capital cost of building additional greenhouses, how could Ritter justify such investments?

That argument made sense to Don. Surely the cost of greenhouses is incremental when they are all in use, since additional capacity would have to be built if Ritter were to sell more mums. But the greenhouses are used to the 45,000-unit capacity in only one of the

three growing seasons. In the other two seasons combined, Ritter grew and sold only 41,250 units. During those non-peak seasons, Ritter could grow many more mums. Ritter's policy of making all mums grown in a year bear a \$0.77 capital cost was simply misleading, since additional mums could be grown without bearing any additional capital cost during seasons with excess capacity. Mums grown in peak seasons, however, actually cost much more than Ritter had been assuming, since those mums require capital additions. Thus, if the annual cost of an additional greenhouse (depreciation, interest, maintenance, heating) is \$9,000, and if the greenhouse will hold 5,000 mums for three crops each year, the capital cost per mum would be \$0.60 ( $\$9,000 / (3 \times 5,000)$ ) only if all greenhouses are fully utilized throughout the year. Since the greenhouses are filled to capacity for only one crop per year, the relevant capital cost for pricing that crop is \$1.80 per mum ( $\$9,000 / 5,000$ ), while it is zero for pricing crops at other times.<sup>1</sup>

As a result of his discussions, Don calculated two costs for mums: One to apply when there is excess capacity in the greenhouses and one to apply when greenhouse capacity is fully utilized. His calculations are shown in Exhibit 9A-2. These two alternatives do not exhaust the possibilities. For any product, different combinations of costs can be fixed or incremental in different situations. For example, if Ritter found itself with excess mums after they were grown, potted, and ready to sell, the only incremental cost would be the cost of shipping. If

**EXHIBIT 9A-2** Relevant Cost of Mums

	With Excess Capacity	At Full Capacity
<b>Price</b>	\$3.85	\$3.85
- Cost cuttings	0.40	0.40
- Incremental labor	0.52	0.52
- Other direct costs	0.68	0.68
= Dollar contribution margin	\$2.25	\$2.25
- Incremental capital cost	0	1.80
= Profit contribution	\$2.25	\$0.45

Ritter found itself with too little capacity and too little time to make additions before the next peak season, the only way to grow more mums would be to grow fewer types of other flowers. In that case, the cost of greenhouse space for mums would be the opportunity cost (measured by the lost contribution) from not growing and selling those other flowers. The relevant cost for a pricing decision depends on the circumstances. Therefore, one must begin each pricing problem by first determining the relevant cost for that particular decision.

For Ritter, the decision at hand involved planning production quantities and prices for the forthcoming year. There would be three crops of mums during the year, two during seasons when Ritter would have excess growing capacity and one during the peak season, when capacity would be a constraint. The relevant gross margin would be \$2.25, or 58.5 percent ( $\$2.25/3.85$ ), for all plants. In the peak season, however, the net profit contribution would be considerably less because of the incremental capital cost of the greenhouses.

Don recognized immediately that there was a problem with Ritter's pricing of mums. Since the company had traditionally used cost-plus pricing based on fully allocated average cost, fixed costs were allocated equally to all plants. Consequently, Ritter charged the same price

(\$3.85) for mums throughout the year. Although mums grown in the off-peak season used the same amount of greenhouse space as those grown during the peak season, the relevant incremental cost of that space was not always the same. Consequently, the profit contribution for mums sold in an off-peak season was much greater than for those sold in the peak season. This difference was not reflected in Ritter's pricing. Don suspected that Ritter should be charging lower prices during seasons when the contribution margin was large and higher prices when it was small. Using his new understanding of the relevant cost, Don calculated the breakeven sales quantities for a 5 percent price cut during the off-peak season, when excess capacity makes capital costs irrelevant, and for a 10 percent increase during the peak season, when capital costs are incremental to the pricing decision. These calculations are shown in Exhibit 9A-3.

Don first calculated the percent breakeven quantity for the off-peak season, indicating that Ritter would need at least a 9.3 percent sales increase to justify a 5 percent price cut in the off-peak season. Then he calculated the basic breakeven percentage for a 10 percent price increase during the peak season. If sales declined by less than 14.6 percent as a result of the price increase (equal to 6,570 units, given Ritter's expected peak season

#### EXHIBIT 9A-3 Breakeven Sales Changes for Proposed Price Changes

##### *5% Off-Peak Season Price Cut*

$$\text{Breakeven sales change} = \frac{-(-5.0)}{58.5 - 5.0} = +9.3\%$$

##### *10% Peak Season Price Increase*

$$\text{Breakeven sales change} = \frac{-10.0}{58.5 + 10.0} = -14.6\%$$

$$\text{Breakeven sales with incremental fixed costs}^* = -14.6\% + \frac{-\$9,000}{\$2.635 \times 45,000} = -22.2\%$$

\*The new dollar contribution margin is \$2.635 after the 10% price increase

sales of 45,000 mums), the price increase would be profitable. Don also recognized, however, that if sales declined that much, Ritter could avoid constructing at least one new greenhouse. That capital cost saving could make the price increase profitable even if sales declined by more than the basic breakeven quantity. Assuming that one greenhouse involving a cost of \$9,000 per year could be avoided, the breakeven decline rises to 22.2 percent (equal to 9,990 units). If

a 10 percent price increase caused Ritter to lose less than 22.2 percent of its projected sales for the next peak season, the increase would be profitable.

Judging whether actual sales changes were likely to be greater or smaller than those quantities was beyond Don's expertise. He calculated a series of "what if" scenarios, called breakeven sales change simulated scenarios, and then presented his findings to Sue James, Ritter's sales manager (see Exhibit 9A-4).

**EXHIBIT 9A-4 Breakeven Sales Change Simulated Scenarios (Vertical Orientation)**

<b>With Excess Capacity 5% Off-Peak Season Price Cut</b>			
<b>Scenario</b>	<b>% Change in Actual Sales Volume</b>	<b>Unit Change in Actual Sales Volume</b>	<b>Change in Contribution After Price Change</b>
1	0%	—	\$(16,504)
2	5%	4,313	\$(7,631)
3	10%	8,625	\$1,242
4	15%	12,938	\$10,115
5	20%	17,250	\$18,988
6	25%	21,563	\$27,861
7	30%	25,875	\$36,734
Baseline price			\$3.85
Baseline contribution margin			\$2.25
New price			\$3.66
New contribution margin			\$2.06
<b>At Full Capacity 10% Peak Season Price Increase</b>			
<b>Scenario</b>	<b>% Change in Actual Sales Volume</b>	<b>Unit Change in Actual Sales Volume</b>	<b>Change in Contribution After Price Change</b>
1	0%	0	\$50,454
2	-5%	-4,313	\$39,090
3	-10%	-8,625	\$27,727
4	-15%	-12,938	\$16,363
5	-20%	-17,250	\$5,000
6	-25%	-21,563	\$(6,364)
7	-30%	-25,875	\$(17,727)
Baseline price			\$3.85
Baseline contribution margin			\$2.25
New price			\$4.24
New contribution margin			\$2.64

Sue felt certain that sales during the peak season would not decline by 22.2 percent following a 10 percent price increase. She pointed out that the ultimate purchasers in the peak season usually bought mums as gifts. Consequently, they were much more sensitive to quality than to price. Fortunately, most of Ritter's major competitors could not match Ritter's quality since they had to ship their plants from more distant greenhouses. Ritter's local competition, like Ritter, would not have the capacity to serve more customers during the peak season. The high-quality florists who comprised most of Ritter's customers were, therefore, unlikely to switch suppliers in response to a 10 percent peak-period price increase. If peak season sales remained steady, profit contribution would increase significantly, by about \$50,000. If peak season sales declined modestly, the change in profit contribution would still be positive.

Sue also felt that retailers who currently bought mums from Ritter in the off-peak season could probably not sell in excess of 9.3 percent more, even if they cut their retail prices by the same 5 percent that Ritter contemplated cutting the wholesale price. Thus, the price cut would be profitable only if some retailers who normally bought mums from competitors were to switch and buy from Ritter. This possibility would depend on whether competitors chose to defend their market shares by matching Ritter's price cut. If they did, Ritter would probably gain no more retail accounts. If they did not, Ritter might capture sales to one or more grocery chains whose price-sensitive customers and whose large expenditures on flowers make them diligent in their search for the best price.

Don and Sue needed to identify their competitors and ask, "How does their pricing influence our sales, and how are they likely to respond to any price changes we initiate?" They spent the next two weeks talking with customers and with Ritter employees who had worked for competitors, trying to formulate answers. They learned that they faced two essentially different types of

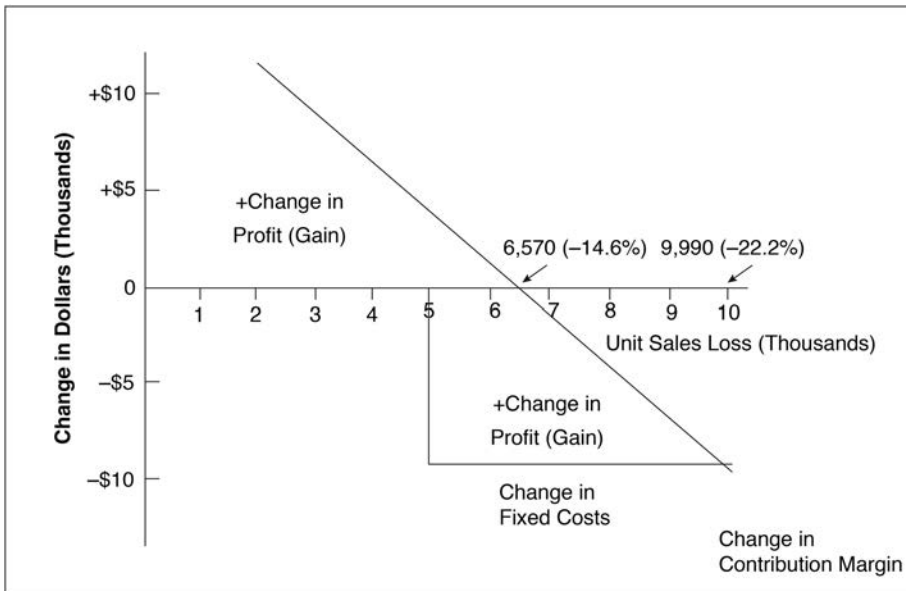
competition. First, they competed with one other large local grower, Mathews Nursery, whose costs are similar to Ritter's. Because Mathews's sales area generally overlapped Ritter's, Mathews would probably be forced to meet any Ritter price cuts. Most of the competition for the largest accounts, however, came from high-volume suppliers that shipped plants into Ritter's sales area as well as into other areas. It would be difficult for them to cut their prices only where they competed with Ritter. Moreover, they already operated on smaller margins because of their higher shipping costs. Consequently, they probably would not match a 5 percent price cut.

Still, Sue thought that even the business of one or two large buyers might not be enough to increase Ritter's total sales in the off-peak season by more than the breakeven quantity. Don recognized that the greater price sensitivity of large buyers might represent an opportunity for segmented pricing. If Ritter could cut prices to the large buyers only, the price cut would be profitable if the percentage increase in sales to that market segment alone exceeded the breakeven increase. Perhaps Ritter could offer a 5 percent quantity discount, for which only the large, price-sensitive buyers could qualify.<sup>2</sup> Alternatively, Ritter might sort its mums into "florist quality" and "standard quality," if it could assume that its florists would generally be willing to pay a 5 percent premium to offer the best product to their clientele.

Don decided to make a presentation to the other members of Ritter's management committee, setting out the case for reducing price to large buyers by 5 percent for the two off-peak seasons and for increasing price by 10 percent for the peak season as illustrated in Exhibit 9A-5. After Don's presentation, Sue James explained why she believed that sales would decline by less than the breakeven quantity if price were raised in the peak season. She also felt sales might increase more than the breakeven percent if price were lowered in the off-peak seasons, especially if the cut could be limited to large buyers.



EXHIBIT 9A-5 Profit Impact of a 10 Percent Increase



Since Ritter has traditionally set prices based on a full allocation of costs, some managers were initially skeptical of this new approach. They asked probing questions, which Don and Sue’s analysis of the market enabled them to answer. The management committee recognized that the decision was not clear-cut. It would ultimately rest on uncertain judgments about sales changes that the proposed price changes would precipitate. If Ritter’s regular customers proved to be more price sensitive than Don and Sue now believed, the proposed 10 percent price increase for the peak season could cause sales to decline by more than the breakeven quantity. If competitors all matched Ritter’s 5 percent price cut for large buyers in the off-peak season, sales might not increase by as much as the breakeven quantity.

The committee accepted the proposed price changes. In related decisions, they postponed construction of one new greenhouse and established a two-tier approach to pricing mums based on

selecting the best for “florist quality” and selling the lower-priced “standard quality” mums only in lots of 1,000.

Finally, they agreed that Don should give a speech at an industry trade show on how this pricing approach could improve capital utilization and efficiency. In the speech, he would reveal Ritter’s decision to raise its price in the peak season. (Perhaps Mathews’s management might decide to take such information into account in independently formulating its own pricing decisions.) He would also let it be known that if Ritter were unable to sell more mums to large local buyers in the off-peak season, it would consider offering the mums at discount prices to florists outside of its local market. This plan, it was hoped, would discourage non-local competitors from fighting for local market share, lest the price-cutting spread to markets they found more lucrative.

At this point, there was no way to know whether these decisions would prove profitable. Management could have requested more formal research

into customer motivations or a more detailed analysis of non-local competitors' past responses to price-cutting. Since past behavior is never a perfect guide to the future, the decision would still have

required weighing the risks involved with the benefits promised. Still, Don's analysis ensured that management identified the relevant information for this decision and weighed it appropriately.

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## Notes

1. We are assuming that a greenhouse depreciates no more rapidly when in use than when idle. If it did depreciate faster when used, the extra depreciation would be an incremental cost even for crops grown during seasons with excess capacity.
2. This option could expose Ritter to the risk of a legal challenge if Ritter's large buyers compete directly

with its small buyers in the retailing of mums. Ritter could rebut the challenge if it could justify the 5 percent discount as a cost saving in preparing and shipping larger orders. If not, then Ritter may want to try more complicated methods to segment the market, such as offering somewhat different products to the two segments.

## Appendix 9B

# DERIVATION OF THE BREAKEVEN FORMULA

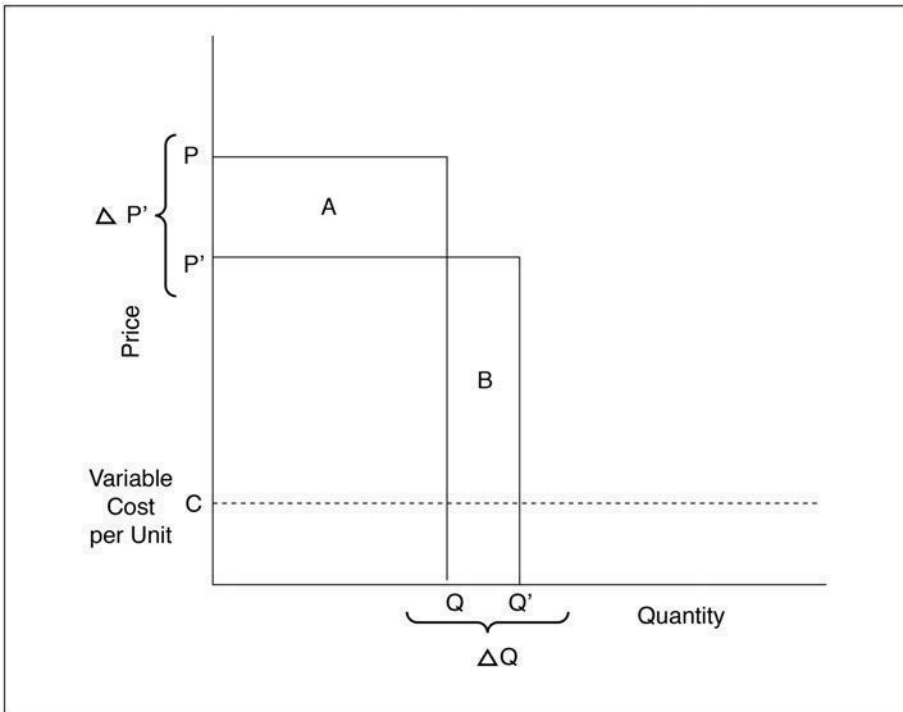
A price change can either increase or reduce a company's profits, depending on how it affects sales. The breakeven formula is a simple way to discover at what point the change in sales becomes large enough to make a price reduction profitable, or a price increase unprofitable.

Exhibit 9B-1 illustrates the breakeven problem. At the initial price  $P$ , a company can sell the quantity  $Q$ . Its total revenue is  $P$  times  $Q$ , which graphically is the area of the rectangle bordered by the lines  $0P$  and  $0Q$ . If  $C$  is the product's variable cost, then the total profit contribution earned at price  $P$  is  $(P - C)Q$ . Total

profit contribution is shown graphically as the rectangle left after subtracting the variable cost rectangle ( $0C, 0Q$ ) from the revenue rectangle ( $0P, 0Q$ ).

If this company reduces its price from  $P$  to  $P'$ , its profits will change. First, it will lose an amount equal to the change in price,  $\Delta P$ , times the amount that it could sell without the price change,  $Q$ . Graphically, that loss is the rectangle labeled  $A$ . Somewhat offsetting that loss, however, the company will enjoy a gain from the additional sales it can make because of the lower price. The amount of the gain is the profit that the company will earn

EXHIBIT 9B-1 Breakeven Sales Change Relationships



from each additional sale,  $P' - C$ , times the change in sales,  $\Delta Q$ . Graphically, that gain is the rectangle labeled B. Whether or not the price reduction is profitable depends on whether or not rectangle B is greater than rectangle A, and that depends on the size of  $\Delta Q$ .

The logic of a price increase is similar. If  $P'$  were the initial price and  $Q'$  the initial quantity, then the profitability of a price increase to  $P$  would again depend on the size of  $\Delta Q$ . If  $\Delta Q$  were small, rectangle A, the gain on sales made at the higher price, would exceed rectangle B, the loss on sales that would not be made because of the higher price. However,  $\Delta Q$  might be large enough to make B larger than A, in which case the price increase would be unprofitable.

To calculate the formula for the breakeven  $\Delta Q$  (at which the gain from a price reduction just outweighs the loss or the loss from a price increase just outweighs the gain), we need to state the problem algebraically. Before the price change, the profit earned was  $(P - C)Q$ . After the change, the profit was  $(P' - C)Q'$ . Noting, however, that  $P' = P + \Delta P$  (we write, “ $+\Delta P$ ” since  $\Delta P$  is a negative number) and that  $Q' = Q + \Delta Q$ , we can write the profit after the price change as  $(P + \Delta P - C)(Q + \Delta Q)$ . Since our goal is to find the

$\Delta Q$  at which profits would be just equal before and after the price change, we can begin by setting those profits equal algebraically:

$$(P - C)Q = (P + \Delta P - C)(Q + \Delta Q)$$

Multiplying this equation through yields:

$$PQ - CQ = PQ + \Delta PQ - CQ + P\Delta Q + \Delta P\Delta Q - C\Delta Q$$

We can simplify this equation by subtracting  $PQ$  and adding  $CQ$  to both sides to obtain:

$$0 = \Delta PQ + P\Delta Q + \Delta P\Delta Q - C\Delta Q$$

Note that all the remaining terms in the equation contain the “change sign”  $\Delta$ . This is because only the changes are relevant for evaluating a price change. If we solve this equation for  $\Delta Q$ , we obtain the new equation:

$$\frac{\Delta Q}{Q} = \frac{-\Delta P}{P + \Delta P - C}$$

which, in words, is:

$$\% \text{ Breakeven sales change} = \frac{-\text{Price Change}}{\text{Contribution Margin} + \text{Price Change}}$$

## Specialized Strategies Adapting Pricing to Accommodate Common Challenges

*If you always do what you've always done, you will only get what you've always got.*  
Anonymous

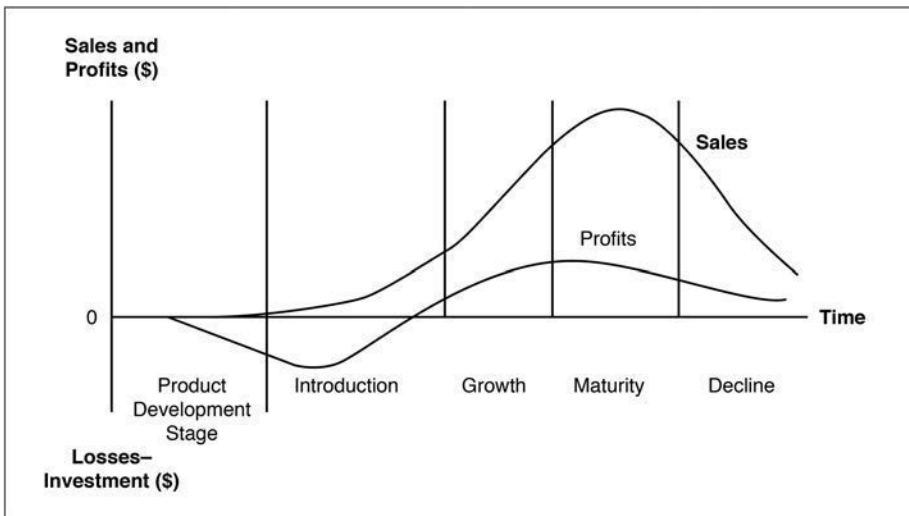
There are infrequent, yet common, strategic pricing challenges that can damage profitability unless recognized and managed appropriately. Appropriate management generally requires changing goals and patterns of organizational behavior to reflect a change in circumstances. Someone with cross-functional authority—perhaps someone in top management, perhaps an empowered manager of strategic pricing—must recognize the challenge and create an organizational or a cross-functional process to address it. The purpose of this chapter is to identify some of those challenges, enabling you to anticipate and thus to manage them proactively. They are as follows:

- Adapting pricing strategy over the product category life cycle
- Managing export prices in foreign currencies
- Managing pricing when markets slump
- Establishing transfer prices to maximize profitability across profit centers.

While the discussions that follow describe practices for dealing with each of these challenges, they also illustrate how understanding pricing issues that we have dealt with individually—customer value, competition, costing, and internal organization—can reveal still more opportunities for profit improvement when considered collectively.

### **ADAPTING PRICING STRATEGY OVER CATEGORY LIFE CYCLE**

The market for a product category passes through predictable phases, each with its own challenges for pricing (see Exhibit 10-1). Innovations, which offer customers new benefits that they could not achieve previously, require

**EXHIBIT 10-1 Sales and Profits Over the Product's Life, from Inception to Demise**

convincing customers that they should include the new category in the set of things they purchase. Growth in a product category requires aligning value with price across emerging market segments. Maturity requires making choices designed to maintain margins in the face of increasing competition and customers with enough accumulated experience to confidently evaluate the features and benefits of competing brands. Recognizing the need to adjust proactively to a changing market is key to sustaining relatively high margins and profits over the entire life cycle of a product category.

### Pricing an Innovation

The number one pricing challenge when launching an innovation is to establish a price level that reflects and communicates the unique value created by the new “technology.”<sup>1</sup> Not all new products are innovations from a customer perspective, since most new products simply offer more of the same benefits as their earlier substitutes or offer the same benefits at a lower cost. When a new technology enables customers to achieve entirely new benefits, it creates a new category of purchases. Since the category is new, most potential customers lack direct experience from which to infer value. A small subset of potential customers is likely to be induced to try an innovation because they can afford the risk and may know more about the science or technology of the category. Everyone else is unlikely to buy it, regardless of the price, because they have no experience enabling them to infer the heretofore unexperienced benefits and because they have no anchor by which to determine whether the price is “expensive” or “cheap” relative to value received.

The first automobiles, vacuum cleaners, electric stoves, automatic teller machines, and desktop computers, as well as the first offers of acupuncture sessions to treat illness, initially had to overcome considerable buyer apathy despite what ultimately proved to be substantial benefits. Why? Because

an innovation requires buyers to change patterns they have learned from experience for how best to satisfy their needs. By definition, most customers know little about an innovative product or service and how it might address unmet needs in new ways that produce new benefits, let alone what the value of those benefits might be. Hence, successful launches of innovations hinge upon a company's ability not only to create good value, but to develop customers who understand at least the potential of the product to create value for them.

An important aspect of that process is called information "diffusion." Most of what individuals learn about innovative products comes from seeing and hearing about the experiences of others.<sup>2</sup> The diffusion of that information from person to person has proven especially influential for large-expenditure items, such as consumer durables, where buyers take a significant risk the first time they buy an innovative product. For example, an early study on the diffusion of innovations found that the most important factor influencing a family's first purchase of a window air conditioner was neither an economic factor such as income nor a need factor such as exposure of bedrooms to the sun. The most important factor was social interaction with another family that already had a window air conditioner.<sup>3</sup> This finding has been replicated with dozens of innovations ranging from consumer electronics to business computers.

This diffusion process is extremely important in formulating pricing strategy for two reasons: First, empirical studies indicate that demand does not begin to accelerate until the first two to five percent of potential buyers adopt the product.<sup>4</sup> The attainment of those initial sales is the hardest part of marketing an innovation. Obviously, the sooner the seller can close those first sales, the sooner she will generate positive cash flow and grow the market to its long-run level of demand. Second, "early adopters" are not generally a random sample of buyers. They are people particularly suited to evaluate the product before purchase. In most cases, they are also people to whom the later adopters, or "imitators," look for guidance and advice.

Even early adopters, who may understand the technology and the potential benefits of an innovation, usually know little about how to value them in monetary terms. Value communications and effective promotional programs can readily influence which attributes drive those initial purchase decisions and how those attributes are valued. Identifying the early adopters and making every effort to ensure that their experience is positive is an essential part of marketing an innovation.<sup>5</sup>

The implication is that, in contrast to the launch of new products into mature markets, innovative products that create new markets are unlikely to win much additional volume by setting prices low, since neither "imitators" nor "early adopters" are price sensitive when making their first purchase. The "imitators" are not going to become early adopters simply because of a low price, since they lack a reference for determining what would constitute a fair or bargain price. "Early adopters," on the other hand, are likely to place the highest value among all segments on the product's potential benefits; that is what motivates them to try new, unproven products and services. The goal of pricing an innovation is to establish a reference price, via sales to early adopters, that communicates their belief that the innovative product or service offers differentiating benefits that are worth a premium price. That price, however, must not exceed a level that would cause early adopters to conclude

after purchase that the product's price was not justified by value received. Their endorsement and, if the product is a consumable, their repeat purchase, is what ultimately will drive growth as imitators, seeing the behavior and satisfaction of the early adopters, gain confidence that a purchase in the category is worth the risk.

So how can one drive initial adoption of an innovation if low pricing is unlikely to be very effective? Instead of setting prices low, one is far better off setting prices initially as if the only market for the product were those customers in the "early adopter" segment. The high margin from making a successful sale gives the firm a high incentive to mitigate hurdles that might otherwise prevent purchase. For example, one of those hurdles is often that channel intermediaries do not want to carry, let alone promote, a product that does not already have a market. In such situations, a large, even if temporary, *wholesale* price discount combined with resale price maintenance (see Chapter 12, pages 299–312) creates a high margin to motivate channel intermediaries. For consumer packaged goods, the discount may be offered in return for displaying the innovative product on an aisle "end cap" or other highly visible location. Sellers of innovative B2B technology products offer discounts for a limited time to influential channel partners who in return offer a high level of technical support that minimizes the risk of product adoption.

To motivate the early-adopter end customers, the goal is to overcome all the non-price hurdles to purchase. To mitigate fear that an innovative product or service might not actually generate the promised benefits, the seller might offer a high level of new purchase support, as Apple does with its Apple Stores® staffed by "geniuses" who enable potential buyers to recognize and personally experience the benefits of its product innovations both before and after purchase. For consumables, such as software products or memberships to a newly opened gym, the seller can offer limited free trials. For example, Tableau's innovative data visualization software gives potential buyers 30 days of free use before requiring a payment to purchase continued access. It is important to note that in these cases, while the word "free" is used to motivate trial, the product is not in fact being discounted for a sustained period. In fact, the customer is being framed on the price that reflects value, and expects to pay that price once product performance is demonstrated and the benefits are experienced, or at least anticipated.

For innovative products that are infrequently purchased or experiential products, companies sometimes offer money-back guarantees that the product will be accepted for return for a refund if the customer is not fully satisfied. In the most extreme cases, companies selling high-margin innovations will even guarantee benefits whenever they are easily and objectively measurable. Pharmaceutical companies launching innovative drugs with relative high prices, such as chemotherapies, will sometimes offer the payer a complete refund for any patient who fails to respond to treatment.<sup>6</sup> Another example comes from BulbHead, a seller of innovative lighting solutions. One of their top-selling items is a "Star Shower Motion" that consists of a laser light that is planted in front of a house and projects a decorative kaleidoscope of light onto it. One challenge facing potential buyers is that the product has been so popular that it has led to the less scrupulous holiday revelers stealing these lights from people's lawns. To mitigate this potential barrier to purchase, BulbHead offers to send a replacement to any purchaser who has lost a Star Shower to theft.<sup>7</sup>



Of course, these types of offers can be expensive ways to make initial sales, but not nearly as expensive in the long run as offering a low price that is only minimally effective in driving sales but very effective in anchoring future price expectations at a needlessly low price point.

### Price Reductions in Growth

The end-customer retail price for the growth stage is normally less than the price set during the market development stage. In most cases, new competition in the growth stage gives buyers more alternatives from which to choose, while their growing familiarity with the product enables them to better evaluate those alternatives. Both factors will increase price sensitivity over what it was in the development stage. Moreover, even if a firm enjoys a patented monopoly, reducing price after the innovation stage can speed the product adoption process and enable the firm to profit from faster market growth.<sup>8</sup> Such price reductions are usually possible without sacrificing profits because of cost economies from an increasing scale of output and accumulated experience.

Price competition in the growth stage is not generally cut-throat. The growth stage is characterized by a rapidly expanding sales base. New firms can generally enter existing markets and can expand without forcing competitors' sales to contract. For example, sales of Apple's iPhone® continued to grow, despite continual loss of some market share to new entrants during growth of the smartphone category. Because new entrants can grow without forcing established firms to contract, the growth stage usually will not precipitate aggressive price competition. Watch out, however, for the following situations that can presage unanticipated price competition:

1. Production economies resulting from manufacturing greater volumes are large and the market is price sensitive. Consequently, each firm sees the battle for volume as a battle for long-run survival (as often occurs in the electronics industry).
2. Sales volume determines which of two or more competing technologies becomes the industry standard (as occurred in the market for digital music players).
3. Growth in production capacity jumps ahead of the growth in sales (as occurred in the market for solar panels), creating excess capacity.

In the cases above, price competition can become bitter as firms sacrifice short-term profit to sustain market share that they hope will become profitable as market size continues to increase.

Whether or not price competition becomes intense, the most profitable and generally viable pricing strategies in growth involve segmentation. In the introduction phase, all customers are new to the market but over time customers naturally segment themselves between those who are making their first purchase and those who are knowledgeable and experienced users of the new technology. Experienced buyers know enough to compare products based on online descriptions. Consequently, they can get better pricing than less experienced buyers, who may require the help of a retailer to select and configure the product.

In addition, different segments of the market emerge during the growth stage that will get different amounts of value from a product and/or will require different levels of costs to serve them. Innovative pharmaceuticals are a case in point. In most cases, end consumers pay only a fixed amount for a drug regardless of the cost to the healthcare system—which in some countries is a governmental department and in others is an insurer. The different types of payers range from those that exercise little control over what doctors prescribe, to those that create financial incentives for doctors and patients to select one drug in preference to another, to those that will pay for only a limited subset of drugs listed on an “approved formulary” list, leaving patients to pay the full cost of using a drug not on that list. The challenge when a market is highly segmented is to design a structure of discount criteria for contracting with these different types of payers that maximizes total profit contribution as described in Chapter 4.<sup>9</sup>

### **Pricing the Established Product in Maturity**

Many products fail to make the transition to market maturity because they failed to achieve strong competitive positions with differentiated products or a cost advantage earlier in the growth stage.<sup>10</sup> In the growth stage, the source of profit is sales to an expanding market. In maturity, that profit source becomes nearly depleted. A strategy in a mature market that is predicated on continued expansion of one’s customer base will likely be dashed by competitors’ determination to defend their market shares. Having made capacity investments to produce a certain level of output, competitors will usually defend their market shares to avoid being overwhelmed by sunk costs.<sup>11</sup>

Pricing latitude is further reduced by the three additional factors that increase price competition as the market moves from growth to maturity:

1. The accumulated purchase experience of repeat buyers improves their ability to evaluate and compare competing products, reducing brand loyalty and the value of a brand’s reputation.
2. The imitation of the most successful product designs, technologies, and marketing strategies reduces product differentiation, making the various brands of different firms more directly competitive with one another. This homogenizing process is sometimes sped up when product standards are set by government agencies or by respected independent testing agencies such as Underwriter Laboratories.
3. Buyers’ increased price sensitivity and the lower risk that accompanies production of a proven standardized product attract new competitors whose distinctive competence is copying and more efficiently producing products for which there is already a strong category demand.

All three of these factors have worked to reduce the prices of cellular phone services and of laptop computers by well more than half in competitive developed markets.

As discussed in Chapter 7 on Price Competition, effective pricing of commoditized products in maturity usually focuses not on valiant efforts to buy market share but on making the most of whatever competitive advantages the firm has to sustain margins. Even before industry growth is exhausted

and maturity sets in, a firm does well to seek out opportunities to maintain its margins in maturity, despite increased competition among firms and increased sophistication among buyers. The five situations described below are good places to look for margin enhancement opportunities in mature markets despite the competitive pressures:

**1. UNBUNDLING RELATED PRODUCTS AND SERVICES** In the growth stage it is important to make it easy for potential buyers to try the product and to ensure that customers encounter no problems in experiencing the benefits. Consequently, it makes sense to sell everything needed to achieve the benefit as a bundled package. During decades of rapid growth in the customer base for video games, Nintendo launched uniquely popular video games—like “Super Mario”—that could only be played on its own video consoles. But as smartphones became more powerful, the growth in gaming shifted from dedicated players to mobile devices. To sustain its growth, Nintendo began in 2016 to unbundle its popular software IP from its video player—creating “Super Mario Run” for the iPhone.<sup>12</sup> Although the price to download Super Mario to a mobile device is relatively low, the cost of sales and delivery is also low while the market is huge. Nintendo also for the first time licenses its creative IP for a theme park ride. Nintendo illustrates how, at the same time a market suffers from saturation, the existing base of loyal customers usually creates opportunities to grow by unbundling and leveraging the assets to grow in tangential markets.

As a market moves toward maturity, bundling normally becomes less a competitive defense and more a competitive invitation. As their numbers increase, competitors more closely imitate the differentiating aspects of products in the leading company’s bundle. This makes it easier for someone to develop just one superior part, allowing buyers to purchase other parts from the leading company’s other competitors. If buyers are forced to purchase from the leading company only as a bundle, the more knowledgeable ones will often abandon it altogether to purchase individual pieces from innovative competitors. Unless the leading company can maintain overall superiority in all products, unlikely in the maturity stage, it is generally better to focus on the products and services for which one can deliver a better value profitably, and let knowledgeable customers buy other parts from competitors. In the personal computer industry, the most successful companies built their products to accommodate whatever brand of printer or other peripheral products the customer might prefer.

**2. IMPROVED ESTIMATION OF PRICE SENSITIVITY** Given the instability of the growth stage of the life cycle, when new buyers and sellers are constantly entering the market, formal estimation of buyers’ price sensitivity is often a futile exercise. Estimates of price–volume trade-offs during growth frequently rely on qualitative judgments and experience from trial-and-error experimentation. In maturity, when the source of demand is repeat buyers and when competition becomes more stable, a firm can better gauge the incremental revenue from a price change and discover that a little fine-tuning of price can significantly improve profits. Most large consumer packaged goods companies have gained a competitive advantage relative to smaller competitors by investing in the capability to track and maintain actual sales data of their products at the

retail level. This has enabled them to more finely optimize their competitive pricing strategies by package size, geography, and channel.

**3. IMPROVED CONTROL AND UTILIZATION OF COSTS** As the number of customers and product variations increases during the growth stage, a firm may justifiably allocate costs among them arbitrarily. New customers and new products initially require technical, sales, and managerial support that is reasonably allocated to overhead during growth, since it is as much a cost of future sales as of the initial ones. In the transition to maturity, a more accurate allocation of incremental costs to sales may reveal opportunities to significantly increase profit. For example, one may find that sales at certain times of the year, the week, or even the day require capacity that is underutilized during other times. Sales at these times should be priced higher to reflect the cost of capacity, creating an incentive for customers who can shift their demand to periods when capacity is underutilized. Examples of this tactic include discounted gym memberships that restrict access to off-peak hours, lower shipping costs if the recipient can accept delivery at off-peak hours, or “early bird discounts” at restaurants for diners willing to eat before the evening rush.

More important, a careful cost analysis will identify those products and customers that are simply not carrying their weight. If some products in the line require a disproportionate sales effort, that should be reflected in the incremental cost of their sales and in their prices. If demand cannot support higher prices for them, they are prime candidates for pruning from the line.<sup>13</sup> The same holds true for customers. If some require technical support disproportionate to their contribution, one might well implement a pricing policy of charging separately for such services. While the growth stage provides fertile ground in which to make long-term investments in product variations and in developing new customer accounts, maturity is the time to cut one’s losses on those that have not begun to pay dividends and that cannot be expected to do so.<sup>14</sup>

**4. EXPANSION OF THE PRODUCT LINE** Although increased competition and buyer sophistication in the maturity phase erode one’s pricing latitude for the primary product, the firm may be able to leverage its position as a differentiated or as a low-cost producer to sell peripheral goods or services that it can price more profitably or by establishing charges for “discretionary” services. Although car rental margins are slim because they are easy to compare, the rental companies earn highly profitable margins from sales of the related add-ons: insurance, GPS systems, child safety car seats, and fuel purchase options. Credit card companies make money on the over-limit and late payment charges, the foreign currency fees, and the fees charged to retailers, even when they barely break even on the annual fee and the interest charges that drive a consumer’s choice of a card.

**5. REEVALUATION OF DISTRIBUTION CHANNELS** Finally, in the transition to maturity, most companies begin to reevaluate their wholesale prices with an eye to reducing dealer margins. There is no need in maturity to pay dealers to promote the product to new buyers. Repeat purchasers know what they want and are more likely to consider cost rather than the advice and promotion of the distributor or retailer as a guide to purchase. There is also no longer any need to restrict the kind of retailers with whom one deals. The exclusive

distribution networks for Apple, HP, and even IBM have given way to low-service, low-margin distributors such as discount computer chains, off-price office supply houses, warehouse clubs, and direct sales websites. The discounters who earlier could destroy one's market development effort can in maturity ensure one's competitiveness among price-sensitive buyers. Airlines discovered, to their financial benefit, that the same principle applies to services. Once airlines realized that nearly all seats were filled by people who had experience traveling and so knew where they wanted to go, and probably even the names of airlines who would take them there, they could stop paying travel agents to book tickets. The few passengers who need help, say to book a vacation in an exotic location, still pay for the service. All others book directly with the airlines, online or by phone, saving the airlines millions in fees and even generating booking fees on their own.

## **MANAGING EXPORT PRICES IN FOREIGN CURRENCIES**

Although there is no difference in principle between managing prices in a foreign or domestic currency, it is much more challenging in practice, when managing revenues in a foreign currency while incurring costs in a home currency. The reason is that floating currency exchange rates cause unplanned changes in prices and in costs relative to competitors. Even between economies very closely integrated, such as the United States and Canada, exchange rates can change by much more in a year than would be typical for changes in domestic prices. On July 1, 2014, \$100 of Canadian dollar sales could be exchanged into \$92.87 of U.S. dollar revenue for a U.S.-based firm. One year later, the same \$100 of Canadian sales could be exchanged for only US\$79.62 of revenue, a 14 percent reduction in U.S. dollar terms without any change in Canadian dollar prices.<sup>15</sup> That difference was larger than the entire gross margin of many exports. Such currency fluctuations can easily drain the profitability of an entire market, or massively improve it, in a short period of time.

There are two considerations that a firm needs to take into account when deciding how to respond to a change in exchange rates: one specific to the firm's strategy for export to a foreign market, the other specific to how a shift in an exchange rate impacts the relative competitive position of firms in that specific market. Since companies can have different strategies for sales in different markets, and can face different sets of competitors, there is no one simple formula for adjusting prices for changes in exchange rates. There is, however, a right approach given the circumstances the company faces for each exchange rate change in each market.

### **Foreign Market Sales Strategy**

Exhibit 10-2 summarizes two alternative strategies for foreign market sales, which we have labeled "Opportunistic" and "Committed." The firm's choice of a foreign sales strategy should in part determine its approach to pricing for foreign sales. Is the firm's objective simply to win profitable incremental sales in a foreign market, or to build a valuable brand franchise in that market? While these two objectives may be compatible in the same market for a short time, they will almost never be compatible at all times. In the former case, the firm may largely abandon a market when the depressed value of its currency

makes sales less profitable than elsewhere, while in the latter case, the firm will attempt to maintain its competitive position in a market even at times when optimizing price for that market alone produces little or no immediate contribution to the firm's overall profit. Companies selling commodities such as industrial chemicals and paper will usually adopt an opportunistic strategy, relying on local partners to actually sell their products, and set prices relative to their home currency price or to a price that they set in their home currency for exports. Companies with highly differentiated brands, such as luxury auto and industrial equipment suppliers, will usually follow a "committed" strategy, make investments in a market commensurate with that commitment, and set prices relative to the prices of competing products within that market.

For an opportunistic market, currency hedging may play a limited role if there is a significant gap between when sales are made and products are delivered. A company that sells elevators worldwide, often with contracts in the buyer's currency and often for delivery a year in the future when a new building is near completion, hedges all contracted revenue by buying "puts" sufficient to cover all foreign currency sales for which it has made a price commitment. While that is adequate for implementing an Opportunistic strategy, it leaves a company with a Committed strategy still vulnerable since the latter is making an implicit commitment to keep prices competitive, even for customers to whom it has not yet made a sale.

A Committed company will need to hedge even more revenues. It may opt to hedge a large portion of its entire expected revenues in currency markets for a couple years forward, a costly but prudent strategy. Eventually, however, commitment will include making manufacturing investments in foreign markets to balance changes in the value of revenues with changes in the value of costs. The five largest auto manufacturers in the U.S. all have production capacity, and thus incur costs, in Canada as well. This creates a natural hedge for at least a large portion of their Canadian revenues since, if the Canadian dollar declines, more cheaply produced Canadian cars and car parts can be

**EXHIBIT 10-2** Alternative Strategic Choices for Foreign Market Sales

	<b>OPPORTUNISTIC</b>	<b>COMMITTED</b>
<b>Strategic Objective</b>	<p><b>Maximize current profit globally</b> Optimize export margin globally; let sales by market vary</p> <p>Minimize market-specific investments using local channel partners for market development</p>	<p><b>Maximize long-term value of market</b> Optimize sales in each market; let margins vary</p> <p>Make fixed investments to develop brand awareness and minimize local cost to serve</p>
<b>When Favored</b>	<ul style="list-style-type: none"> <li>• Face high grey market risk</li> <li>• Low gross margin product with variable costs not in local currency</li> </ul>	<ul style="list-style-type: none"> <li>• Grey market risk controllable</li> <li>• High gross margin product or with variable cost offsets in local currency</li> </ul>
<b>Price Setting &amp; Quoting</b>	<p><b>Benchmark against seller's home currency price or "export" price</b></p> <ul style="list-style-type: none"> <li>• Set foreign market price target as home currency or export price plus added costs (tariffs, shipping, etc.)</li> <li>• Quote price either in home currency, or in foreign currency adjusted frequently for exchange rate changes</li> </ul>	<p><b>Benchmark against price of competitive alternative in each market</b></p> <ul style="list-style-type: none"> <li>• Set price to optimize trade-off between margin and volume to achieve maximum contribution within this market</li> <li>• Quote price in foreign currency, adjusting only periodically and using currency hedging over planning period</li> </ul>

imported to the U.S. earning higher margins just as margins decline from sales that generate Canadian dollar revenues. It is important to note that a Committed seller will have to manage grey markets—or redistribution of its products—to ensure that buyers do not take advantage of arbitrage opportunities which can undermine investments that a seller has made in local production, retail presence, and aftermarket support.<sup>16</sup>

### **Competitive Impact of Exchange Rate Shifts**

Unfortunately, commitment is not the only consideration for determining the right way to manage pricing in response to changes in exchange rates. One must also consider how any particular movement in an exchange rate affects your firm's costs relative to your competitors in that market. Is the change in the exchange rate caused by a change in economic conditions affecting your firm's home market currency or by conditions affecting the currency of the market where you will generate revenues? Why should it matter? Because something that affects the value of the foreign currency will affect it relative to all major currencies. All major competitors incurring manufacturing costs in a currency other than the currency of that particular foreign market will be similarly affected. For example, when the value of the Brazilian real declined by more than 20 percent in 2015 compared to the U.S. dollar, exporters of products to Brazil experienced a drastic decline in the revenue and profitability of their Brazilian sales measured in terms of their home currencies, whether those home currencies were euros, British pounds, Japanese yen, South Korean won, or American dollars.<sup>17</sup> When every competitor is facing a loss because of a weakening of the buyers' currency, they all have the same incentive to recover their losses by letting their foreign currency prices rise, and they can do so without fear of becoming less competitive.

The same magnitude of a shift in exchange rates has a very different strategic implication if caused by a strengthening of an exporter's home currency. If the U.S. dollar appreciates due to a tightening of monetary policy relative to that in other major currencies, only exporters incurring costs in the U.S. dollar will experience a decline in dollar revenue and profits earned from sales in the foreign market. Since the profitability of exports costed in euros or yen will remain unchanged by the dollar's appreciation, U.S. exporters cannot expect competitors from other countries to raise their prices to match the increases American firms would need to maintain their U.S. dollar margins. In the reverse situation, when a company's home currency depreciates, it will gain a cost advantage in serving foreign markets relative to competitors incurring costs in other currencies. Thus, the company's leaders might well expect that they could gain share from cutting foreign currency prices to reflect the decline in its relative cost, since foreign competitors will not have the same newly acquired cost advantage.

### **Four Generic Strategies for Managing Exchange Rate Price Adjustments**

These two factors—the strategic goal of the exporter in a particular foreign market and the impact of the currency change on competition—create a two-by-two of market conditions implying four different responses for adapting to changes in currency exchange rates. Exhibit 10-3 illustrates these four options.

EXHIBIT 10-3 Strategies for Managing Foreign Exchange Rate Adjustments

		FOREIGN SALES STRATEGY	
		OPPORTUNISTIC	COMMITTED
RELATIVE COMPETITIVE IMPACT	Competitors are <u>similarly affected</u>	<p><b>Adjust foreign currency prices...</b></p> <p>... Quickly to reflect fully changes in exchange rates</p>	<p><b>Maintain relative foreign currency prices</b></p> <p>... Adjusting to reflect changes in competitors' pricing</p>
	Our firm is <u>uniquely affected</u>	<p><b>Adapt price and sales goals...</b></p> <p>... to optimize worldwide profit contribution</p>	<p><b>Adapt price and market strategy...</b></p> <p>... to optimize within-market profit contribution</p>

**STRATEGY: OPPORTUNISTIC; COMPETITIVE IMPACT: SIMILAR** The easiest way to pursue this strategy is to quote prices in terms of the home country currency, or in terms of another major currency in which the firm incurs its cost, letting the cost in the buyer's local currency adjust automatically. This often means that a local distribution intermediary buys in the currency of the exporter and then quotes prices in local currency. In either case, prices in the local currency adjust quickly to changes in the exchange rate. If there is a delay between when sales are made and product is to be delivered, either the exporter or the distributor (usually the former) hedges the revenues associated with the sales commitment. With competitors adjusting their local currency prices to reflect an exchange rate change, the firm making a full local price adjustment to an exchange rate change can expect to maintain a similar market share profitably. If a committed competitor is willing to maintain local prices, that competitor will suffer in terms of cash flow to invest in the market. A firm without commitment is better off maintaining only whatever level of sales it can continue to make as profitably as it could in any other market. This is a strategy pursued by many non-branded oil refiners making gasoline and heating oil. They ship their product into whatever wholesale market offers the best price at time of shipment.

**STRATEGY: COMMITTED; COMPETITIVE IMPACT: SIMILAR** Geographic markets sufficiently attractive for one company to adopt a committed strategy are also ones where at least some of a firm's competitors are likely to have done likewise. With everyone once again having similar incentives, one might easily assume that the impact of changes in a foreign currency's strength would be the same in committed markets as in ones where a firm has adopted an



opportunistic strategy. But that assumption would generally be wrong. When companies make a financial investment to develop and distribute a brand in a market, they will not quickly abandon the market when those customers' currencies are weak or seek to exploit them when those currencies are strong. Their goal is to build brand awareness and reputation for the long term.

Recall from Chapter 7 the different ways that price competition impacts a large-share firm differently than a small-share competitor. If a local currency weakens, making the local market shrink and sales in that currency less profitable, smaller competitors are more likely to find that their profit contribution no longer covers the ongoing fixed costs of their commitment—local sales offices, promotional expenditures, and service. Thus small-share firms may be tempted to hold prices hoping to win enough additional revenue to survive. The challenge for the large firm is to adopt competitive strategies that makes it difficult for its smaller competitors to avoid either raising their prices or withdrawing. The adjustment to higher pricing may be delayed but eventually such strategies should enable local market prices to adjust to the strength of the currency in the same way that they would in a market where all competitors operate opportunistically.

**STRATEGY: OPPORTUNISTIC; COMPETITIVE IMPACT: UNIQUE** Being uniquely impacted by an exchange rate shift in a market where you have an opportunistic strategy involves primarily accepting that either sales or profit must change radically: the faster the better for the firm's profitability. A strengthening of a firm's home currency will make it less competitive in foreign markets; a weakening will make it more competitive. If major competitors are not facing the same exchange rate issue, they will be unlikely to make adjustments that are in parallel with your firm's new costs, margins, and corresponding objectives. Consequently, the impact of changes in local currency prices is likely to be much larger, since it will likely involve losses or gains in market share. That may not be a problem if the firm's home market or other foreign sales markets are large enough relative to the firm's foreign sales to adjust to a change in available supply. The strengthening of a firm's home currency may reflect strong growth that could absorb sales lost in foreign markets due to reduced competitiveness.

Unfortunately, a firm uniquely impacted by a strengthening home currency will face the problem of becoming less competitive in all of its foreign currency markets simultaneously. If foreign sales consume a substantial portion of the firm's output, it logically may make sense to salvage as much export sales as possible to optimize any remaining contribution from those opportunistic markets. In that case, the firm should lower its export price to partially offset some of the impact of home currency appreciation. Determining how much it should discount its export price would require calculating breakeven sales changes associated with such a discount and determining whether the volumes that could be retained are sufficient to justify the discount.

**STRATEGY: COMMITTED; COMPETITIVE IMPACT: UNIQUE** The default assumption in "committed" markets is that the firm will set prices in local currency and not adjust them automatically to changes in exchange rates, adjusting only if competitors are adjusting their prices. But, in contrast to the case where the market currency has weakened, an appreciation in a firm's home market currency is unlikely to trigger price increases by competitors who incur costs in

other currencies that have not appreciated. A company can, for the next year or so, buy a Put option or sell the expected foreign revenue forward to avoid the risk of such an adverse movement in exchange rates. But such a temporary solution works only for a temporary problem. There is no simple solution to incurring costs in a currency that has strengthened relative to all others when one has investments in export markets that would be lost if the firm were to withdraw its brand, even temporarily.

When change in the value of a home currency uniquely affects your firm in a foreign market, adapting requires a change in strategy, not just in price. Fortunately, when general appreciation in a firm's home currency makes foreign revenues worth less, it also makes foreign investments cost less. By investing in production capacity where the currency is weaker, a firm can rebuild its margins and partially insulate future profitability from swings in the relative value of currencies. Ideally, the firm should look for such opportunities in countries whose currencies tend to weaken when its own home country currency strengthens.

In the process of developing local production capacity, the firm might also develop versions of its products better adapted to the needs and ability to pay in more price-sensitive markets.

## **MANAGING PRICING WHEN MARKETS SLUMP**

Managing pricing when market demand slumps is an essential skill for a pricing strategist in some industries. The economics for many products and services are largely determined by the ability to manage fixed costs, often by ensuring full plant utilization. For example, in capital-intensive industries such as beer brewing, higher education, or airlines, the means of production—whether a manufacturing plant, tenured professors, or an airplane—represent significant fixed costs. Consequently, declines in revenue often precipitate a much larger decline in profitability because these fixed costs, by definition, remain the same. The key to managing downturns successfully is to think clearly about how the downturn is affecting value, not just volume, for different customer segments and to use that knowledge to adjust pricing to drive revenue-generating changes in the mix of your customer base.

Sometimes markets slump for reasons that are not temporary. For example, new technologies make old ones obsolete. When there is a decline in demand for an entire category of products or services, such as when digital technology replaced photographic film and when air travel replaced long-distance trains, the shrinking of the market is permanent. The goal for the company with the strongest advantages in cost or product differentiation is to restructure the business quickly to serve a smaller market, focusing on a more targeted segment of customers who remain loyal to the old technology. For competitors without advantages in the declining market, the goal should be to refocus assets elsewhere as quickly as possible, making pricing decisions in the declining market purely to generate short-term cash flow.

More interesting, and more common, are the cases where a market slump is cyclical and likely to be temporary. There are many industries that are highly cyclical, with demand that swings by much larger percentages than changes in growth of the economy as a whole. When an economic recession replaces 2 percent economic growth with a 2 percent decline, the demand for automobiles

and airline seats declines by multiple times as much. Learning to manage pricing to minimize losses during downturns and to quickly recover profitability during upturns is key to a firm's long-term survival in such industries.

The basic mistake by marketers who are ignorant about pricing is to cut prices across the board when demand falls. Price differences do affect inter-brand choice, especially during recessions when both business and consumer buyers become more price sensitive, a price cut may quickly gain some market share. But if, as can usually be expected, competitors match any cut to protect their market share, any sales gain is likely to be short-lived but industry revenues and profit contribution will remain depressed by even more than the initial decline in unit volume. The goal of any pricing actions should be the opposite: to sustain as much revenue and contribution as possible—both during the recession and the recovery. But how?

Answering that question requires understanding how the general economic decline affects the value perceived by your customers, and how that impact differs by customer segment. There are two reasons why demand may decline during economic recessions: because the number of customers is reduced or because the value of your differentiation is lower. One or both can reduce sales. Most revenue earned by major airlines comes from business travelers. During a recession, many of those business travelers have fewer opportunities to sell their products and so need to make fewer business trips—but the value of the trips they do make, including the differential value of flying on a carrier with direct and frequent flights, is not reduced. If perceived value is the same despite the reduced number of sales opportunities, it makes no sense to reduce prices for the changeable, flexible airline tickets that business travelers commonly demand. It may, however, make sense to reduce prices for ticket types used for discretionary travel, the demand for which is more sensitive to price than business travel. When businesses are planning internal meetings, they will compare the cost to holding the meeting in different locations. An airline (or a hotel) wishing to drive more discretionary business travel to a location where it has much capacity may offer a larger group travel discounts for tickets (or rooms) when sales are forecast to be far from capacity. To drive discretionary leisure travel, the airline might offer more of its capacity through tour operators who are required to offer the highly discounted flights only as part of leisure travel packages, thus precluding their use by business travelers.

To reiterate, determining when and how much to discount during an economic downturn should not depend on how much demand has fallen. What is important is how perceived value is affected and whether a lower price can truly reinvigorate demand. When value is reduced because of a slump in economic conditions, reducing price to reflect that change in value can stimulate category demand, but it is important to do so in a way that does not undermine the ability to charge a value-based price when demand and value recover. A client of ours had a chemical additive that increased the production capacity of a manufacturing plant, including both equipment and labor, by nearly 15 percent. Without their additive, the plant simply had to operate at a slower pace. The company easily launched the product with very profitable margins during a period of strong economic growth, when customers were operating their plants at capacity. When a recession occurred, however, demand for its product collapsed, despite the fact that its customers had maintained about 75 percent of their previous production.

An economic value estimation showed that the value of the additive was maximized when plants were operating near full capacity. But when manufacturing capacity was underutilized, the saving associated with our client's innovative product was only the labor associated with being able to complete work in a shorter period of time. In that case, there was no incremental, avoidable cost of physical capital saved by increasing the efficiency of plant operations. Consequently, to maintain use of the product during the recession, the company would do well to reduce its price. The problem, of course, was how to ensure that the lower price did not become the price that buyers would continue to expect when demand made the product much more valuable.

The solution to this problem, as is often the case, was to create a value-based pricing metric. Instead of cutting the list price, the company offered to “share the pain” of the downturn. For customers agreeing to exclusive two-year contracts that rolled over each month unless canceled, the company agreed to give rebates retroactively for purchases in any month when industry data showed capacity utilization below 90 percent. Since the rebates were equal to nearly half of the selling price and since industry capacity utilization was nearer to 70 percent, the rebate structure made continued use of the product cost-effective. But the 24 month contract meant that when the recession ended and full production resumed, the price of the additive could reset to the original, higher price.

Another alternative to addressing declining demand in a downturn is to raise the value of the offer rather than cutting the price. Hyundai did this during 2009 when U.S. auto sales had fallen by 21.2 percent. Hyundai's research revealed that the reason many consumers were holding off buying a car was not that their incomes had fallen—consumers were still mostly employed (the unemployment rate went from 5 percent in December 2007 to a peak of 10 percent in October 2009<sup>18</sup>)—rather, it was a fear of becoming unemployed and the perceived risk of committing to a long-term car payment. To overcome that fear, Hyundai introduced the “Hyundai Assurance” program whereby a car financed or leased from Hyundai could be returned without any further obligation in the event that the purchaser became unemployed. The program was very effective and did not require additional discounting; Hyundai achieved a 14 percent year-to-year sales increase while the rest of the industry experienced a 30 percent decline.<sup>19</sup>

## **CREATING ECONOMICALLY EFFICIENT TRANSFER PRICES**

A frequently overlooked opportunity to use costs as a source of advantage occurs when the company can manage the prices of its upstream suppliers. These upstream suppliers might be independent companies or independent divisions of the same company that set the prices of products that pass between them. This situation, known as transfer pricing, represents one of the most common reasons why independent companies and divisions are sometimes less price competitive and profitable than their vertically integrated competitors. Most discussions regarding transfer pricing involve setting internal transfer prices between profit centers to minimize taxes across multiple tax regimes. The goal in that case is to find justifications (e.g., countries or states) for allocating costs to profit centers where taxes are relatively high, thus minimizing the tax obligation there, so that the firm can realize profits in a tax regime where

tax rates are relatively low.<sup>20</sup> That is not the purpose of our discussion here nor is it at cross-purposes. As described in Chapter 9 on Financial Analysis, there is no reason why one’s system for allocating costs for pricing need be the same as the system for allocating costs for financial reporting, since they have different purposes. The goal in allocating costs and revenues for pricing is to create incentives to maximize the collective profitability of the entire chain of profit centers that creates a product or service.

Exhibit 10-4 illustrates this often-overlooked opportunity. Independent Manufacturing Inc. sells its product for \$2 per unit in a highly competitive market. To manufacture the product, it buys different parts from two suppliers, Alpha and Beta, at a total cost per unit of \$1.20. The parts purchased from Alpha cost \$0.30 and those from Beta cost \$0.90. Independent Manufacturing conducts a pricing analysis to determine whether any changes in its pricing might be justified. It determines that its contribution margin (price minus variable cost) is \$0.60, or 30 percent of its price.<sup>21</sup>

**EXHIBIT 10-4 Inefficiencies in Transfer Pricing**

	<b>Current Price, Costs, Sales</b>	<b>10% Price Cut, 30% Sales Increase</b>	<b>Change</b>
<i>Independent Manufacturing, Inc.</i>			
Current unit sales	1,000,000	1,300,00	
Price	\$2.00	\$1.80	
Variable materials cost	\$1.20	\$1.20	
Variable labor cost	\$0.20	\$0.20	
Fixed cost	\$0.40	\$0.31	
Contribution margin	\$0.60	\$0.40	
%CM	30%	22%	
Annual pretax profit	\$200,000	\$120,000	(\$80,000)
<i>Alpha Parts Inc.</i>			
Current unit sales	1,000,000	1,300,000	
Price	\$0.30	\$0.30	
Variable cost	\$0.05	\$0.05	
Fixed cost	\$0.20	\$0.15	
Contribution margin	\$0.25	\$0.25	
Annual pretax profit	\$50,000	\$125,000	\$75,000
<i>Beta Parts Inc.</i>			
Current unit sales	1,000,000	1,300,000	
Price	\$0.90	\$0.90	
Variable cost	\$0.35	\$0.35	
Fixed cost	\$0.40	\$0.31	
Contribution margin	\$0.55	\$0.55	
Annual pretax profit	\$150,000	\$315,000	\$165,000

It then calculates the effect of a 10 percent price change in either direction. For a 10 percent price cut to be profitable, Independent must gain at least 50 percent more sales (Chapter 9 presents the formulas for performing these calculations). For a 10 percent price increase to be profitable, Independent can afford to forgo no more than 25 percent of its sales.

Independent's managers conclude that there is no way that they can possibly gain from a price cut, since their sales will surely not increase by more than 50 percent. On the other hand, they are intrigued by the possibility of a price increase. They feel sure that the inevitable decline would be far less than 25 percent if their major competitors followed the increase.

As Independent's management considers how to communicate to the industry the desirability of a general price increase, one of its major competitors, Integrated Manufacturing Inc. announces its own 10 percent price cut. Independent's management is stunned. How could Integrated possibly justify such an "irrational" move? Integrated's product is technically identical to Independent's, involving all the same parts and production processes, and Integrated is a company with a market share equal to Independent's. The only difference between the two companies is that Integrated recently began manufacturing its own parts.

That difference, however, is crucial to this story (see Exhibit 10-5). Assume that Integrated currently has all the same costs of producing parts as Independent's suppliers, Alpha and Beta, and expects to earn a profit from those operations. It also has the same costs of assembling those parts (\$0.20 incremental labor plus \$0.40 fixed per unit). Moreover, Integrated enjoys no additional economies of logistical integration. Despite these similarities, the two companies have radically different cost structures, which respond quite differently to changes in volume and which cause the two companies to experience price changes differently. Integrated has no variable materials

**EXHIBIT 10-5** Efficiency from Cost Integration

	<b>Current Price, Costs, Sales</b>	<b>10% Price Cut, 30% Sales Increase</b>	<b>Change</b>
<i>Integrated Manufacturing, Inc.</i>			
Current unit sales	1,000,000	1,300,000	
Price	\$2.00	\$1.80	
Variable materials cost	None	None	
Variable labor cost (\$0.20 + \$0.05 + \$0.35)	\$0.60	\$0.60	
Fixed cost (\$0.40 + \$0.20 + \$0.40)	\$1.00	\$0.77	
Contribution margin	\$1.40	\$1.20	
%	70%	67%	
Annual pretax profit	\$400,000	\$560,000	\$160,000

cost corresponding to Independent's variable materials cost of \$1.20 per unit. Instead, it incurs additional fixed costs of \$0.60 per unit (\$0.20 plus \$0.40) and incremental variable costs of only \$0.40 per unit (\$0.05 plus \$0.35). This difference in cost structure between Integrated (high fixed and low variable) and Independent (low fixed and high variable) gives Integrated a much higher contribution margin per unit than Independent's margin. For Integrated, \$1.40, or 70 percent of each additional sale, contributes to bottom-line profits. For Independent, only \$0.60, or 30 percent of each additional sale, falls to the bottom line. Integrated's breakeven calculations for a 10 percent price change are, therefore, quite different. For a 10 percent price cut to be profitable, Integrated has to gain only 16.7 percent more sales. But for a 10 percent price increase to pay off, Integrated could afford to forgo no more than 12.5 percent of its sales.

It is easy to see why Integrated is more attracted to price cuts and more averse to price increases than is Independent. For Integrated, sales must grow by only 16.7 percent to make a price cut profitable, compared with 50 percent for Independent. Similarly, Integrated could afford to lose no more than 12.5 percent of sales (compared with as much as 25 percent for Independent) and still profit from a price increase. How can it be that two identical sets of costs result in such extremely different calculations? The answer is that Independent, like most manufacturers, pays its suppliers on a price-per-unit basis. That price must include enough revenue to cover the suppliers' fixed costs and a reasonable profit if Independent expects those suppliers to remain viable in the long run. Consequently, fixed costs and profit of both Alpha and Beta become variable costs of sales for Independent. Such incrementalizing of non-incremental costs makes Independent much less cost competitive than Integrated, which earns more than twice as much additional profit on each unit it sells.

Independent's cost disadvantage is a disadvantage to its suppliers as well. Independent calculates that it requires a 50 percent sales increase to make a 10 percent price cut profitable. Independent, therefore, correctly rejects a 10 percent price cut that would increase sales by 30 percent. With current sales of 1 million units, such a price cut would cause Independent's profit to decline by \$80,000. Note, however, that the additional sales volume would add \$240,000 (\$75,000 plus \$165,000) to the profits of Independent's suppliers, provided that they produce the increased output with no more fixed costs. They would earn much more than Independent would lose by cutting price. It is clear why Integrated sees a 10 percent price cut as profitable when Independent does not. As its own supplier, Integrated captures the additional profits that accrue within the entire value chain (Alpha, \$75,000; Beta, \$165,000) as a result of increases in volume.<sup>22</sup>

Once Independent recognizes the problem, what alternatives does it have, short of taking the radical step of merging with its suppliers? One alternative is for Independent to pay its suppliers' fixed costs in a lump-sum payment, perhaps even retaining ownership of the assets while negotiating low supply prices that cover only incremental costs and a reasonable return. The lump-sum payment is then a fixed cost for Independent, and its contribution margin on added sales rises by the reduction in its incremental supply cost. Boeing and Airbus sometimes do this with parts suppliers, agreeing to bear the fixed cost of a part's design and paying the supplier for the fixed costs of tooling and setup. They then expect a price per unit that covers only the supplier's

variable costs and a small profit. As a result, the airplane manufacturers bear the risk and retain the rewards from variations in volume, giving them a larger incremental margin on each additional sale and so a greater incentive to make marketing decisions, including pricing decisions, which build volume.

An alternative approach is to negotiate a high price for initial purchases that cover the fixed costs, with a lower price for all additional quantities that cover only incremental costs and profit. Auto companies use this system; allowing a supplier to be a sole source with high margins up to a certain volume, presumably enough to recover design and development costs. Beyond that volume, they make the design public and usually expect all suppliers to match the lowest price on offer. In Independent Manufacturing's case, it might negotiate an agreement with Alpha and Beta that guarantees enough purchases at \$0.30 and \$0.90, respectively, to cover their fixed costs, after which the price would fall to \$0.10 and \$0.50, respectively.

Both of these systems for paying suppliers avoid incrementalizing fixed costs, but they do not avoid the problem of incrementalizing the suppliers' profits. They work well only when the suppliers' profits account for a small portion of the total price suppliers receive. Lump-sum payments could be paid to suppliers to cover negotiated profit as well as fixed costs. This is risky, however, since profit per unit remains the suppliers' incentive to maintain on-time delivery of acceptable quality merchandise. Consequently, when a supplier has low fixed costs but can still demand a high profit because of little competition, a third alternative is often used. The purchaser may agree to pay the supplier a small fee to cover incremental expenses and an additional negotiated percentage of whatever profit contribution is earned from final sales.

It is noteworthy that most companies do not use these methods to compensate suppliers or to establish prices for sales between independent divisions. Instead, they negotiate arm's-length contracts at fixed prices or let prevailing market prices determine transfer prices.<sup>23</sup> One reason is that it is unusual to find a significant portion of costs that remain truly fixed for large changes in sales. In most cases, the bulk of costs that accountants label fixed are actually semifixed; additional costs would have to be incurred for suppliers to substantially increase their sales, making those costs incremental. One notable case where costs are substantially fixed is in the semiconductor industry. The overwhelming cost of semiconductors is the fixed cost of product development, not the variable or semifixed costs of production. Consequently, integrated manufacturers of products using semiconductors, such as Samsung, have often had a significant cost advantage. Similarly, Tesla has recognized that if the cost of batteries remains such a large part of the cost of electric cars, a firm that can internalize the fixed costs to make its own batteries will have a large advantage over one that buys batteries at a variable cost.

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## Summary

Most decisions that people, including managers, make are made from habit. When the decision turns out to be the right one in most cases, it gets applied without thinking. When changes occur or

when a new market involves forces that do not fit the pattern of one's experience, it is important to recognize that traditional strategies need to be rethought. Pricing an innovation is different from pricing an



established product, and pricing in maturity is different from pricing in a growing market. Setting prices in foreign currencies when costs are incurred in domestic currencies requires consideration of issues that are not usually part of the pricing decision process. Pricing when a market faces a substantial, but temporary, downturn in demand requires a quick response both to project margins from the current, albeit shrunken market, while driving incremental revenues from new sources. Establishing transfer prices, for sales or purchases, can substantially affect a firm's

competitive viability in those situations where the suppliers' prices cover largely fixed costs. While these are challenges that many companies encounter over years in business, there are no doubt other less common ones that a thoughtful pricer should look out for. There are no tried and true rules for pricing that apply to all situations, even in the same industry. Whenever facing a situation that feels different, it is wise to reevaluate how the forces that drive your usual success in pricing are different and what changes may be necessary in your strategy to accommodate them.

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## Notes

1. We use the term "technology" in the general sense of a concept by which benefits are created. Most innovations are, in fact, enabled by "technology" in the more narrow sense of the word. But occasionally an innovative "technology" is something intangible, like an innovative business model that no one thought of previously. For example, in the middle of the last century, now famous companies like McDonald's and Holiday Inn were innovators in developing and applying the innovative technology of "franchising." The technology of franchising enabled investors with little or no prior knowledge of the industry to enter and enjoy instant success by leveraging a very standardized model—something that was not achievable previously.
2. See Everett M. Rogers and F. Floyd Shoemaker, *Communication of Innovations*, 2nd edn. (New York: The Free Press, 1971); Frank M. Bass, "A New Product Growth Model for Consumer Durables," *Management Science* 15 (January 1969), pp. 215–227.
3. William H. Whyte, "The Web of Word of Mouth," *Fortune* 50 (November 1954), pp. 140–143, 204–212.
4. Rogers and Shoemaker, *op. cit.*, pp. 180–182.
5. See Everett M. Rogers, *Diffusion of Innovations* (New York: The Free Press, 1962), Chapters 7 and 8; Rogers and Shoemaker, *op. cit.*, Chapter 6; Gregory S. Carpenter and Kent Nakamoto, "Consumer Preference Formation and Pioneering Advantage," *Journal of Marketing Research* 26 (August 1989), pp. 285–298.
6. Thomas Nagle, "Money-Back Guarantees and Other Ways You Never Thought to Sell Your Drugs," *PharmaExecutive* (April 2008).
7. "Maker of Blockbuster Star Shower Holiday Lights Will Help Theft Victims by Replacing Lost Items Free," PRNewswire, November 21, 2016. Accessed at [www.prnewswire.com/news-releases/maker-of-blockbuster-star-shower-holiday-lights-will-help-theft-victims-by-replacing-lost-items-free-300366889.html](http://www.prnewswire.com/news-releases/maker-of-blockbuster-star-shower-holiday-lights-will-help-theft-victims-by-replacing-lost-items-free-300366889.html).
8. See Abel P. Jeuland, "Parsimonious Models of Diffusion of Innovation, Part B: Incorporating the Variable of Price," University of Chicago working paper (July 1981).
9. Nagle, *op. cit.*
10. William K. Hall, "Survival Strategies in a Hostile Environment," *Harvard Business Review* (September 1980).

11. This problem can even result in a period of intensely competitive, unprofitably low pricing in the maturity phase, if, as sometimes happens, the industry fails to anticipate the leveling off of sales growth and thus enters maturity having built excess capacity.
12. "It's a-Me! How Super Mario Became a Global Cultural Icon," *The Economist*, December 24, 2016.
13. See Philip Kotler, "Phasing Out Weak Products," *Harvard Business Review* 43 (March–April 1965), pp. 107–118.
14. Theodore Levitt, "Marketing When Things Change," *Harvard Business Review* 55 (November–December 1977), pp. 107–113; Michael Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, (Free Press, 1998), pp. 159, 241–249.
15. OANDA currency converter website. Accessed at [www.oanda.com/currency/converter](http://www.oanda.com/currency/converter).
16. For a more detailed discussion of grey markets and how to manage them, please refer to the discussion in Chapter 4 on Price Structure.
17. Vinod Sreeharsha, "Sharp Drop in Currency Adds to Growing List of Woes in Brazil," *The New York Times*, September 24, 2015. Also see: Joe Leahy, "Exports from China to Brazil Collapse as Recession Deepens," *Financial Times*, February 26, 2016; and Raquel Landim and Eduardo Cucolo, "Drop in Imports Helps to Increase Brazil's Trade Surplus, the Largest since 2011," *Folha de S. Paulo*, January 5, 2016.
18. U.S. Bureau of Labor Statistics, "The Recession of 2007–2009," *BLS Spotlight on Statistics*, February 2012. Accessed January 6, 2017 at [www.bls.gov/spotlight/2012/recession/pdf/recession\\_bls\\_spotlight.pdf](http://www.bls.gov/spotlight/2012/recession/pdf/recession_bls_spotlight.pdf).
19. Randall Beard, "Learning from the Hidden Success Factors of the Hyundai Assurance Program," Marketing with Impact blog, October 9, 2009. Accessed January 6, 2017 at <https://randallbeard.wordpress.com/2009/10/19/hidden-success-hyundai-assurance>.
20. For additional discussion of the goals of, and legal constraints on, transfer pricing in financial reporting, see John McKinley, "Transfer Pricing and Its Effect on Financial Reporting: Multinational Companies Face High-Risk Tax Accounting," *Journal of Accountancy*, October 1, 2013. Accessed January 6, 2017 at [www.journalofaccountancy.com/issues/2013/oct/20137721.html](http://www.journalofaccountancy.com/issues/2013/oct/20137721.html).
21.  $\$CM - \$2.00 - \$0.20 - \$0.60 \%CM = \$0.60 / \$2.00 \times 100 = 30\%$
22. An integrated company does not automatically gain this advantage. If separate divisions of a company operate as independent profit centers setting transfer prices equal to market prices, they will also price too high to maximize their joint profits. To overcome the problem while remaining independent, they need to adopt one of the solutions suggested for independent companies.
23. For a related perspective, see Thomas W. Malone, "Bringing the Market Inside," *Harvard Business Review* 82(4) (April 2004), pp. 106–115.

## Creating Strategic Pricing Capability

### Assembling Talent, Processes, and Data to Build Competitive Advantage

*The facts which kept me longest scientifically orthodox are those of adaptation.*  
Charles Darwin<sup>1</sup>

Even after creating a pricing strategy that addresses all of the elements contained in the value cascade, pricing leaders often find that much of their organization remains remarkably resistant to changing behaviors. As one senior executive we know remarked: “Given the attention we pour into pricing our products, why do the outcomes still seem like a random walk?”

This executive is not alone. In a benchmarking study<sup>2</sup> of more than 200 companies, Deloitte assessed the impact of pricing strategy and execution on profitability and revenue growth. Our research shows that more than 60 percent of sales and marketing managers were frustrated by their organization’s ability to improve pricing performance over time. And more than 75 percent were unsure what they should be doing to drive more effective execution of the organization’s pricing strategy.

In that study, each firm’s pricing strategy was assessed based on key inputs for making a pricing decision such as customer value, costs, competitive conditions or market share goals. Executional capabilities were assessed based on the quality of a firm’s data and tools, the skill level of decision-makers, and the clarity of the firm’s processes. Firm performance was measured on operating profits relative to peer firms within their sector in an effort to eliminate the impact of sector differences. A broad spectrum of firms drawn from a range of sectors including manufacturing, consumer products, health care, financial services, high tech, retailing and services were included in the analysis.

To facilitate this analysis, firms were classified based on the quality of their pricing strategy (value-based or not) and the ability of a firm to execute a pricing strategy (strong or weak). Each firm was assigned to one of four archetypes, as shown in the two-by-two matrix in Exhibit 11-1. There were the “Value Masters” who employed value-based pricing and excelled at execution; “Well Intentioned” firms that were value-based but poor executors, “Directionally Challenged” firms that did not have a value-based pricing strategy and lagged in their executional capabilities; and the “Runaway Trains” that were excellent at execution but did not employ a value-based pricing strategy.

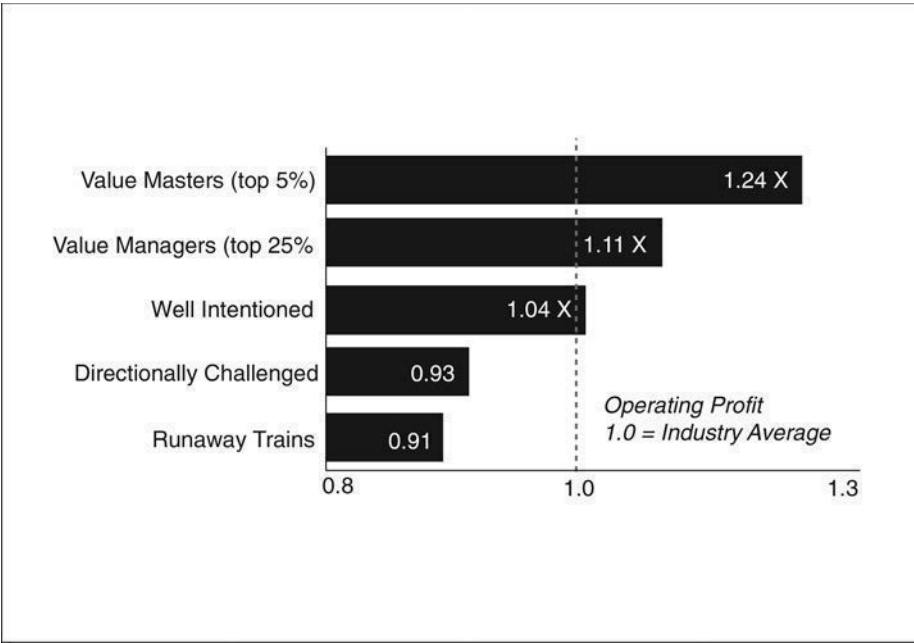
When operating profitability was compared among these four archetypes, the results were clear: Firms that employ a value-based pricing strategy paired with strong execution capabilities, outperform their peers by a significant margin. As shown in Exhibit 11-2, firms that excel on both dimensions were, on average, 24 percent more profitable than their industry average. The worst performers were those that did not link their pricing strategy to value yet executed effectively, hence the moniker “Runaway Trains.”

One common trait among each of the “Value Masters” is that they excelled in setting strategic goals and objectives across all elements of the value cascade: They understood how to create value for customers, how to

**EXHIBIT 11-1 Archetypal Pricing Organizations**

		Well Intentioned	Value Masters
Value-based Strategy?	YES		
		Directionally Challenged	Runaway Trains
	NO		
		NO	YES
		Strong Execution Capabilities?	

**EXHIBIT 11-2 Operating Profit Relative to Industry Peers**



convey the value proposition, build offers for each segment served, design policies that encourage profitable transactions, and had the ability to monitor transaction performance. But good strategy alone is not enough. The highest performing firms in our study also invested heavily in building an organizational structure to support execution of a value-based strategy. These firms exhibited an internal alignment around value: R&D efforts focused on innovations that created value, not just new features; marketing communications messages translated product features and services into benefits to which customers could assign value; and clear policies linked discounts to trade-offs of value and price. Overall, these organizations exhibited a singular focus on their customers and framed decisions based on how they would influence customers’ perceptions of value.

So why do most organizations still struggle to implement a strategic, value-based approach to pricing that has proven to be more profitable? While there are many answers to this question, several organizational shortfalls account for the majority of the challenge.

The first organizational challenge involves pricing skills and capabilities. According to one study, only 9 percent of business schools offer a stand-alone course on the topic of pricing,<sup>3</sup> explaining in part why only 6 percent of the Fortune 500 have a dedicated pricing function.<sup>4</sup> In addition, many industries went through a long period of stable, or in some cases decreasing, input costs that lasted for much of the 1990s and early 2000s. The apparel industry, for example, experienced declines in labor and cotton costs, two of its major input

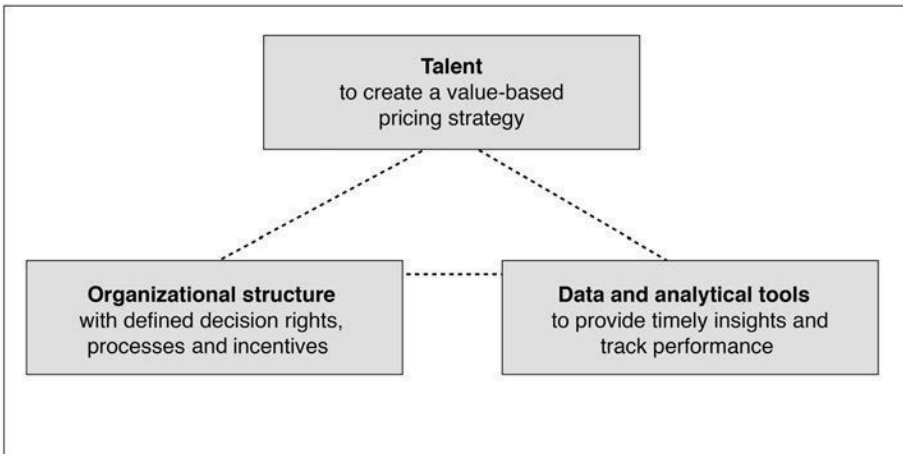
costs, over a 15-year period dating back to 1995. Consequently, pricing was a less pressing issue and many turned their attention to improving other sources of profitable growth. However, as cost shocks simultaneously hit cotton and labor from 2008 to 2012, many apparel companies found that they did not have the know-how to raise prices in an effort to preserve their margins.<sup>5</sup>

A second challenge is the need to coordinate pricing decisions across functional areas, requiring the input and support of many decision-makers. Even when a company has a pricing function formally tasked with managing pricing, compensation plans that reward sales revenue alone make it difficult for even well-intentioned sales representatives to fight for an additional percentage point of price when that might increase the probability of losing a deal and the associated compensation. Along the same lines, marketers are often incentivized to maintain or grow market share, which can often be accomplished most quickly through price promotions that may erode brand equity and long-term margins. Finance executives are often evaluated on achieving a target margin percentage which leads them to argue against low-margin/high-volume opportunities that could increase return on investment even at the expense of return on sales. Operations executives often focus on maintaining capacity utilization even when that drives down market prices and reduces profits for all. Our research shows, however, that the Value Masters tended to have incentive structures that rewarded profitable pricing decisions.

A third challenge is access to the necessary information and tools to make profitable pricing decisions. The Value Masters in our survey generally had some form of commercial-grade pricing software that expedited the task of analyzing transactional data. Most had alerts that were triggered if discounts exceeded a threshold. Many had historical price-trend data to determine market prices. These systems allowed companies to assess profitability at the customer and product level, identify costly customer behaviors that were worth discouraging, and quickly detect and intervene with customers who were receiving “exceptional” pricing.

Taken together, there are three underlying investments needed to build a strategic pricing capability. As noted by Dutta *et al.*,<sup>6</sup> these investments can be classified as: (i) The human talent needed to develop a value-based pricing strategy; (ii) an organizational structure with well-identified roles and responsibilities for managing and executing the pricing strategy; and (iii) the data and analytical tools needed to supply the organization with relevant, timely information (Exhibit 11-3).

To succeed, companies need to balance investment in all three elements; investing too much in one at the expense of the others can lead to catastrophe. The airline industry, for example, invested heavily in yield management tools in the 1980s and used this new capability to engage in an extensive price war that in 1991 managed to wipe out the cumulative profits earned by airlines up to that point in their history.<sup>7</sup> It can be argued that many airlines over-invested in data and analytics (which enabled the price wars), and under-invested in the other two components of a pricing capability: The ability to innovate profitable new sources of value and establishing an organizational understanding that targeting market share alone is a recipe for disaster.

**EXHIBIT 11-3** The Foundation for a Strategic Pricing Capability

### Assessing the Maturity of the Pricing Organization

So how can you determine the relative capability of your pricing organization? A quick test would be to ask your top five executives to articulate your firm's pricing strategy. If you get five different answers, you likely have a problem! And while we raise this point a little tongue in cheek, the responses can demonstrate a lack of maturity in a firm's pricing capability. What to evaluate:

- Number of deviations from agreed-upon price schedules
- Clarity about lines of authority for pricing decisions
- Ability to implement upcharges for non-standard customer requests
- Number of uncollected charges and an increased number of write-offs
- Existence of unearned discounts
- Number of pricing errors
- Frequency of order processing and fulfillment errors.

To help inventory a firm's capabilities more precisely, we use the framework provided by the Value Cascade and assess each element on three dimensions: (i) How well articulated is the strategy that supports each element of the cascade; (ii) what is the degree of organizational alignment behind each and is there someone responsible for managing that element of the cascade; and (iii) are there systems and tools in place to help inform and guide each element of the cascade?

Exhibit 11-4 provides a summary of the capabilities needed to support each element of the value cascade as well as organizational characteristics at each level of maturity. In general, as companies become better at quantifying their value and delivering that value consistently, their financial performance tends to improve.<sup>8</sup>

**EXHIBIT 11-4 Assessing Each Element of the Value Cascade**

	Basic	Reactive	Progressive	Optimized	Preeminent
<b>Value Creation</b>	Focus primarily on products and services rather than customer needs and values	Customer value drivers are understood and inform pricing strategy to some extent	Customer value drivers are understood and inform pricing strategy to some extent	Customer value drivers are understood and inform pricing strategy to some extent	Customer value drives product design decisions; pricing is based on predicted demand and value created for customer
<b>Value Communication</b>	Market communications center on product features and attributes, with minimal discussion of customer benefits	Ability to link product features and attributes to customer benefits	Ability to link product features and attributes to customer benefits	Product features and attributes are translated into impact on a customer's business model, value drivers are quantified	Product features and attributes are translated into impact on a customer's business model, value drivers are quantified
<b>Price Structure</b>	Product offerings undifferentiated by customer segments; bundles created regardless of actual service needs or usage	Some segment-specific product offerings and targeted bundles that reflect differences in value and cost to serve	Some segment-specific product offerings and targeted bundles that reflect differences in value and cost to serve	Segment-customized product offerings based on customer value and specific costs to serve	Segment-customized product offerings based on customer value and specific costs to serve
<b>Price Policy</b>	Pricing is devoid of consistent policies, with strategy focused on ad hoc reaction to individual customers or deals	Pricing policies have been developed but may be inconsistently applied or require frequent exceptions	Pricing policies have been developed but may be inconsistently applied or require frequent exceptions	Pricing strategies and policies are fully understood and implemented, with limited need for exceptions	Pricing strategies and policies are fully understood and implemented, with limited need for exceptions
<b>Price Setting</b>	Minimal analytics to optimize profitability. Prices set to achieve volume or revenue goals	Established and automated analysis used in setting price and evaluating pricing decisions	Established and automated analysis used in setting price and evaluating pricing decisions	Heavy pricing analytics/optimization with clear execution accountability	Heavy pricing analytics/optimization with clear execution accountability
<b>Price Competition</b>	Prices set in reaction to competitive moves; minimal consideration given to anticipating competitive reactions	Pricing seen as strategic, is well documented, and is managed across the organization	Pricing seen as strategic, is well documented, and is managed across the organization	Understanding of competitor's business model and how and where they are likely to defend their share	Understanding of competitor's business model and how and where they are likely to defend their share



## ESSENTIAL ELEMENTS OF THE PRICING ORGANIZATION

The best strategy in the world is only as good as an organization's ability to make it come to life. A frequent barrier to implementing improved pricing strategies—whether it is a new way of configuring the offer design or simply applying more discipline to discounting—is that the change does not align with “the way we do things around here.” Or worse, the idea of creating a pricing function is seen as a threat to the political power of a member of the management team who currently has the ability to adjust prices or approve deals to achieve some short-term, functional objective.

Consider the example of an IT distributor that had long prided itself on developing an array of high-quality services that included best-in-class customer support that includes on-demand technical consulting delivered by in-house engineers and next-day delivery logistics. These services were included with the purchase of any product and available to any customer. However, a closer look at the customer base revealed that not everyone needed this high level of support—and in fact many price-sensitive customers were defecting to competitors selling a cheaper offering bereft of many expensive services. After careful consideration, this distributor received a recommendation to create a tiered services model whereby customers could either get lower product prices in exchange for lower service levels, or they could retain access to high service levels by paying a small premium on their purchases. The immediate response among senior executives was that “everyone needs the high level of service, it's just that some customers don't know it yet.” Only after losing 20 percent of their revenue base to low-cost competitors was this company willing to test a low-cost offering. Once they did, the results were staggering—the low-cost offer enabled the distributor to regain their price-sensitive customers and to do so profitably by offering them a standardized way to buy.

Ultimately, the characteristic that most distinguishes high-performing organizations is the ability to continually refine and re-imagine the process for how value is exchanged between seller and buyer. High-performing companies exhibit the following characteristics:

- An ability to challenge industry norms governing how products and services are sold to customers
- The capacity to experiment with new pricing models and a willingness to accept the inherent risk of trying something new.

The ability to challenge norms of how value is exchanged has never been more important. As disruptive forces such as autonomous driving, urbanization, or a low-growth economic environment exert themselves on established businesses, we are seeing massive changes in how value is created, delivered, perceived and captured. In the past ten years, entire industries have had their pricing models upended, in some cases multiple times. Music labels used to control the revenue model by selling albums in physical formats such as records, CDs, and cassettes. In 2001, Apple undid this revenue model when it launched iTunes® to allow for the sale of single songs and by 2011, revenues from digital outpaced physical content sales. In 2016 the dominant revenue

model switched yet again to streaming, led by the likes of Spotify, Apple itself<sup>9</sup> and others. There are many other industries, including hospitality, transportation, telecommunications, legal services and software that have seen similar upheaval in their revenue models.

One remarkable characteristic of this disruption is that revenue models have typically been reinvented by industry newcomers who often harness disruptive technologies and are themselves unencumbered by industry norms or by the risk of failure. Kodak endured a legendary decline brought on by digital technology, but its demise was not inevitable. In fact, Kodak invented the original digital camera back in 1975. Management's reaction at the time when Kodak's revenue was driven by the high-margin sales of paper and chemicals, was "that's cute but don't tell anyone."<sup>10</sup> Kodak viewed themselves as being in the paper and chemicals business and had no idea how to monetize the bits and bytes that underpin a digital photo. Yet consumers who valued a cost-effective and convenient way to create a visual record of their life adventures eagerly adopted new offerings from a host of companies that offered digital cameras, storage devices, and file-sharing services that reshaped our relationship with photography. Along similar lines, companies like Uber and Airbnb, unencumbered by decades of industry norms such as selling high volumes of cars to fill plant capacity or putting "butts in beds" to utilize large real-estate investments, have re-imagined how consumer transportation or hospitality needs could be addressed. Of course, newcomers are able to take on more risk; after all, what is the worst that can happen to a start-up company?

That said, successful incumbent companies will continually take calculated risks to reinvent their business and stay ahead of the upstarts. Any incumbent should ask whether their organizational culture is holding back innovative ideas. If an organization is to survive, and even thrive, it is critical that managers continue to challenge themselves on how their own industry may become disrupted by upstarts with new ways of creating and capturing value. Still, some companies are better than others at challenging the status quo.

Amazon is a company that has throughout its history continuously tried new ways of doing things. From a seemingly simple beginning of creating an online bookstore, to replacing books with electronic readers, to creating the world's largest online department store, to delivering food from local restaurants, the company has shown a willingness to try new things and accept the risk of failure. In 2016, its approach extended to launching a small chain of physical bookstores in recognition of a consumer desire to browse and discover new content.<sup>11</sup> Amazon has continually explored new ways to reinvent its own business model.

By contrast, other retailers may be more reticent to try entirely new business models and instead focus on optimizing the deployment of existing assets such as store locations, assortment designs, or floor layouts. There is nothing wrong with this type of learning and experimentation—indeed, there are great gains to be had from optimization efforts in most businesses.<sup>12</sup> However managers should be aware that optimization is inherently centered on current business norms and runs the risk of missing opportunities to disrupt the existing business model or the risk of being disrupted.

### Exploring New Ways to Manage a Price Increase: Lessons from Netflix

Done poorly, a pricing move can have disastrous consequences. The example of Netflix, the innovative movie rental company, demonstrates that there are effective and less effective ways to raise prices. In July 2011, when Netflix raised prices of its services by up to 60 percent and split its DVD and streaming businesses into two entities, the consumer outrage was immediate. Facing significantly higher prices and the need to use two channels for accessing content, movie watchers everywhere blogged, tweeted, emailed, unfriended, and even wrote old fashioned letters to any organization that would listen.<sup>13</sup> The displeasure reached a crescendo when Netflix's CEO issued a public apology for the price increase. However, the damage was done. More than 10,000 customers posted their displeasure on the company's blog; 1 million subscribers had cancelled their service; and the company lost more than half of its market value within two months.

By contrast, a more recent price increase by Netflix has been well-received. On May 12, 2014, Netflix implemented a 12.5 percent price increase, gained 1.7 million new subscribers during the quarter in which the increase took effect, and the impact is estimated to total \$500 million in incremental revenue by 2017.<sup>14</sup>

What was different this time around? Netflix segmented their customer base between existing and new subscribers and only applied the increase to new customers. Since existing customers were not subject to the higher price, and new subscribers were opting in, consumers generally did not perceive a "loss" typically associated with a traditional price change. In addition, Netflix had announced its intent to raise prices, and offered guidance that the increase would "be in the \$1 to \$2 range." When the increase came in at the bottom of the range, affected consumers were likely relieved that it was not more. Given the range of potential market reactions, it's no wonder managers often approach price increases with trepidation.

The ability to challenge existing business norms and try new things has enabled Netflix not only to manage the transition from a DVD-by-mail business to a streaming model. It has also enabled Netflix to share in the new value streams created for its customers.

### Creating Alignment on Pricing Objectives

One of the most common reasons why good pricing strategies fail when implemented is that processes and incentives within the organization are inconsistent with the strategy's objectives. An executive at a global commercial bank recently described the challenge:

*At a global level, our leadership team is tasked with managing the profitability of the entire business. We've made significant investments in customer service and other value-added capabilities to better serve customers and ensure that our products are at the forefront of the industry. Our stated goals at the corporate level include an ambitious gross margin target that reflects the superior quality of our services.*

At the same time, this executive explained that sales were managed at the country level and each country manager was responsible for setting prices to reflect local-market and competitive conditions. Country managers, however, were primarily assessed on achieving volume and share targets. Consequently, country managers viewed pricing as a lever for achieving sales goals, with profits as a secondary consideration. Not surprisingly, prices negotiated by country managers were often below the expectations of global leadership. To make matters even more challenging, country managers often customized discount programs, often in ways that were not supported by the bank's billing systems. As one might imagine, the end result was complete chaos with hundreds of discounts that could not be tracked by the bank's operations team, millions of dollars in services that were not invoiced, and an inability to perform even basic profitability analysis of customer accounts.

To break this cycle, the company created a weekly meeting to review all new contracts to ensure some degree of consistency and internal alignment. To further mitigate the price erosion, all parties agreed to adhere to criteria that customers had to meet to qualify for price discounts. While a seemingly simple mechanism, bringing key decision-makers into a conversation led to a common understanding of global objectives yet still allowed the ultimate price to reflect local market conditions.

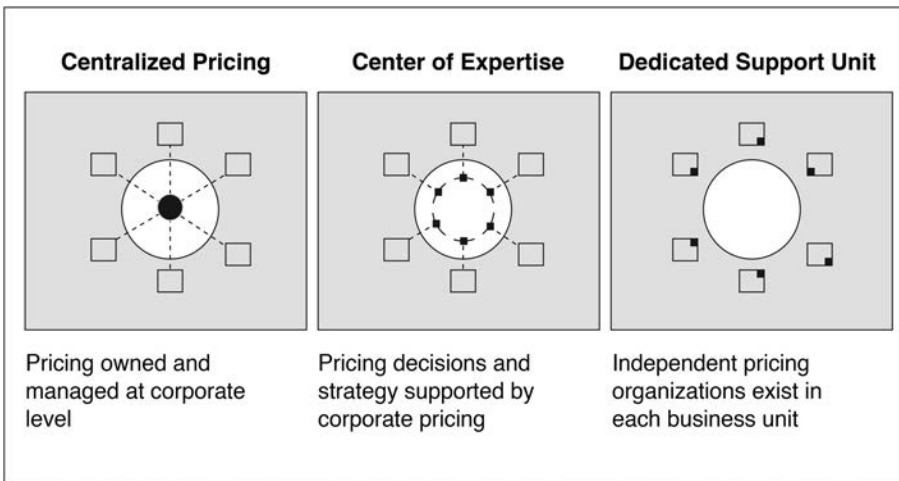
### **Matching the Extent of Pricing Centralization with Organizational Needs**

The above example highlights a critical choice facing organizations in designing a pricing function: The degree of centralization. Generally speaking, a more centralized pricing function is effective when a company operates within a single market or has business units operating in similar market contexts. Centralized pricing in these contexts enables the company to invest in developing a core of expertise that can be leveraged across markets. However, the benefits of a centralized pricing function diminish when business units are operating in markets that have significant variations in terms of competitive pressures, product specifications, or customer buying patterns. In those instances, it is often more productive to push decision-making out to the business units while maintaining coordination and support mechanisms more centrally.

These two dimensions of a pricing function, the role played and the degree of centralization, provide the underpinnings for three archetypal organizational structures for the pricing function (Exhibit 11-5). The actual choice of an organizational design may involve some combination of these archetypes because each potential choice involves trade-offs that can enhance or detract from the ability to execute the pricing strategy. Nevertheless, we have found these archetypal structures prevalent across markets.

The first archetype is "Centralized Pricing," in which pricing decisions are made and managed at the corporate level. This archetype is commonly used in industries such as energy or airlines where the product is highly commoditized and financial success is driven by achieving an advantage in the cost of operation and capacity (yield) management. It is important to note that even in centralized pricing organizations, actual price levels may vary in (controlled) ways across markets; the key is that the pattern of variation is closely managed.

## EXHIBIT 11-5 Pricing Structure Archetypes



Where pricing is centralized, the role of the business unit is to collect data and enforce process compliance in support of the pricing decisions made at the corporate office. Large airlines are examples of companies that typically have a highly centralized pricing function. For example, as of this writing, one of the major airlines offered 18 different prices for flights from New York to Miami.<sup>15</sup> Multiply this complexity by the more than 325 routes that this airline serves and it is easy to see the complexity of responding to competitive price moves. Adding to the challenge, any change in the price of one route immediately creates shifts in demand that have a cascading effect on other routes and markets served. In addition, given the hyper-competitive nature of the airline industry where competing airlines will quickly respond to price moves, a single pricing mistake has the potential to ignite a price war. Consequently, for an organization like a major airline, it is imperative to manage pricing in a centralized setting to ensure that any price change is considered in a global context.

The second functional archetype is the “Center of Expertise,” which is characterized by the business units maintaining control of the pricing decisions and pricing processes. In this structure, the pricing function provides a vehicle for sharing best practices and supports the development of more effective pricing strategies. The central group will often have specialized skills such as the ability to perform advanced analytics or to build systems capabilities that would not be cost effective to develop for each business unit individually. Often the group assumes the role of functional coordinator. As noted previously, this team will often serve as an internal consulting function focused specifically on pricing that improves pricing outcomes through knowledge transfer. Markets with unique local conditions, such as retail or telecommunications, will often have functional coordinators that assist local area managers in decision-making.

The final functional archetype is the “Dedicated Support Unit” in which each business unit has a dedicated pricing group that is only loosely aligned with corporate pricing (if that function even exists). The role is typically either a functional coordinator or commercial partner. This type of structure

is appropriate for diversified businesses with little overlap in market type or customer base.

### Decision Rights Specify Pricing Roles and Responsibilities

Formal structure alone is not the only consideration when organizing for pricing; it is also necessary to specify decision rights of managers both within and outside of the pricing function. Allocating decision rights ensures that each participant understands their role and the constraints on what they can and cannot do with respect to pricing. Failure to formally allocate pricing decision rights leads to more inconsistent pricing and greater conflict as managers attempt to influence pricing decisions.

A business services company unwittingly ran into this problem when it created a key account team to augment their traditional sales force to better serve its largest accounts. Unfortunately, there was no coordination between the key account team and the traditional sales force in managing price quoting activity. As a result, large accounts started to receive competing and inconsistent price quotes, which only led these large customers to actively solicit additional quotes in hopes of getting a better deal. Although large accounts grew considerably under the key account program, average selling prices declined rapidly, along with profitability.

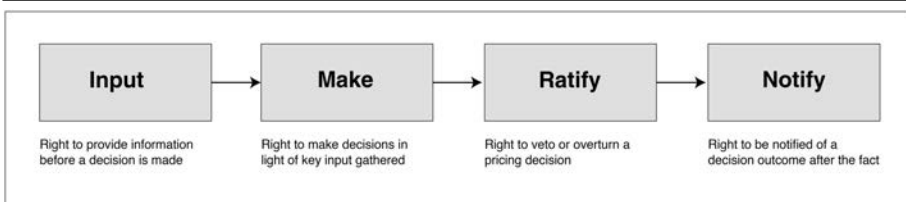
Decision rights, as the name implies, define the scope and role of each person's participation in the decision-making process as illustrated in Exhibit 11-6. There are four types of decision rights: Input, make, ratify and notify.

*Input.* Given the large amount of data required to make pricing decisions, many managers are given "input" rights to pricing decisions. As the name implies, input rights enable an individual to be an accepted source of some specified information necessary for the decision. Typically, input rights are granted to individuals from finance, forecasting, and research to provide critical data, such as the additional cost imposed by rush orders, but they are not responsible for commercial outcomes.

*Make.* In contrast to "input" rights, which can be allocated to many individuals, the "make" decision rights should belong to only one person or committee. This ensures clear accountability for pricing decisions and creates an incentive to follow up on pricing choices to ensure that they are implemented correctly.

*Ratify.* Ratification rights provide a mechanism for senior managers to overturn pricing decisions when they conflict with broader organizational priorities. It is essential to separate "make" and "ratify" rights to ensure that senior managers can regulate the decision-making process without the burden of monitoring and analysis that leads to a recommendation. Granting ratification rights to a senior manager balances the need to incorporate her strategic

EXHIBIT 11-6 Types of Decision Rights



perspective into the decision-making process against protecting her time and ensuring that she does not get bogged down in day-to-day pricing operations.

*Notify.* Finally, “notification” rights should be allocated to individuals that will use or be affected by the pricing decisions in other decision-making processes. For example, it is quite common to grant notification rights for pricing decisions to members of the product development team so that they can build more robust business cases for new products and services.

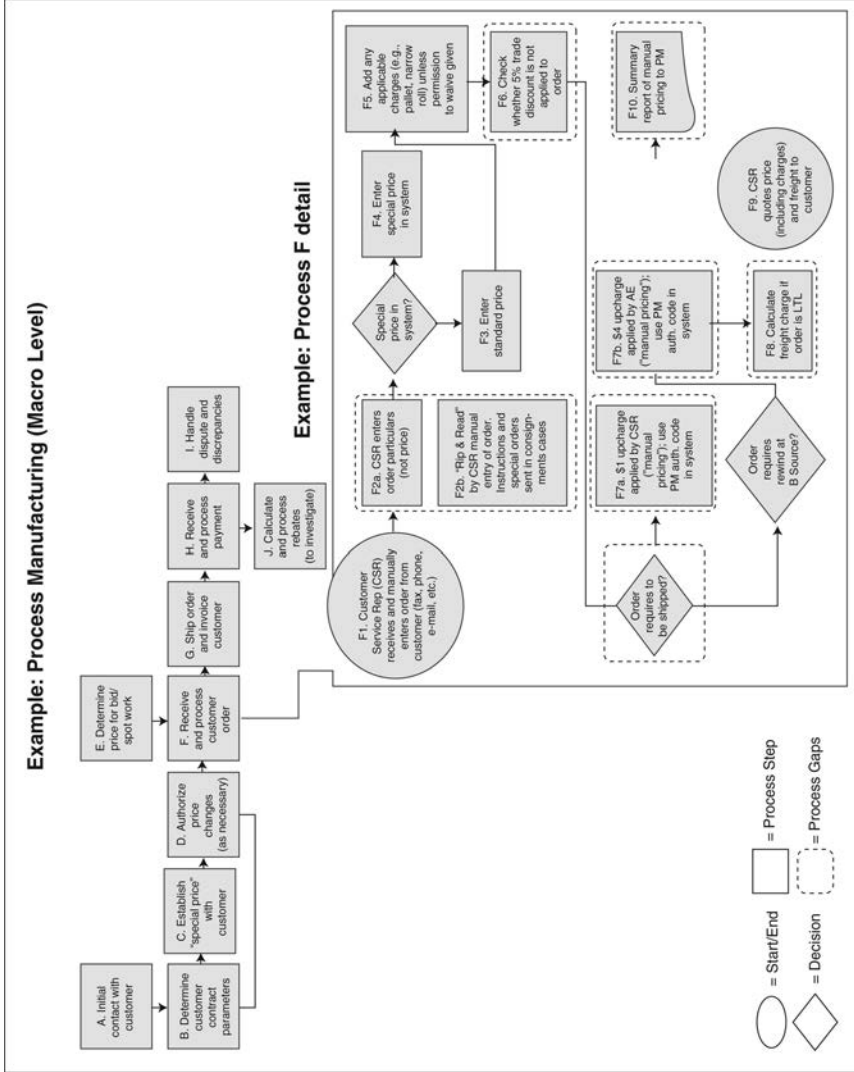
### **Pricing Processes to Ensure Successful Strategy Implementation**

Once the organizational structure has been established and decision rights have been defined, the final step for organizing the pricing function involves the creation of clearly defined pricing processes. In many organizations, pricing processes are defined quite narrowly, including only price-setting and discount approval activities. But strategic pricing spans all of the activities that contribute to more profitable commercial outcomes. For example, the negotiation process might not be considered part of the pricing function, but it is one of the most critical determinants of transaction profitability. So too, are decisions about whether and what to charge for services such as rush orders, special packaging and extended terms. Moreover, a process to define and change discount policies proactively is necessary to avoid creating by default a reactive process for approval of ad hoc discounts. It is essential to think broadly when defining pricing processes.

Ensuring that all elements of pricing strategy get regular proactive review makes the investment in formally defining pricing processes a good one. Thankfully, the steps to creating good processes are fairly straightforward and facilitating the creation of them is an important role of the pricing function.

- Step 1: Define major pricing activities.** This step involves defining the major process activities such as opportunity assessment, price setting, negotiation, and contracting. The objective is to put boundaries around the commercial system so that all relevant activities affecting profitability are included.
- Step 2: Map current processes.** This step creates a visual depiction of the processes by which pricing decisions are currently made, as illustrated in Exhibit 11-7. Even if there are no formally defined processes currently in place, this is a critical step for finding the source of undesirable pricing outcomes.
- Step 3: Identify profit leaks.** This step uses a variety of pricing analytics (discussed in the next section of this chapter) to identify where profit leaks—which we define as losses in profitability caused by, for example, unwarranted or unmanaged discounts, incurrence of unnecessary costs, or unmet terms and conditions—are occurring in the current pricing process.
- Step 4: Redesign process.** This final step creates a series of redesigned pricing processes for each of the major pricing activities identified in Step 1. In order to implement the new processes, it is frequently necessary to revise decision rights to account for new individuals included in the revised process and to account for current decision-makers from whom decision rights have been taken away.

**EXHIBIT 11-7 Map of Decision-Making Process for a Manufacturing Company**





## **Performance Measures and Incentives: Aligning Sales Incentives with Strategy**

Measuring performance motivates desirable behaviors, especially when the measures lead to public rewards or financial recognition. Yet, many companies struggle to obtain the desired results from their compensation programs as evidenced by the more than 58 percent of managers in our research who indicated that their incentive plans likely encourage choices that reduce company profits.<sup>16</sup> So why is it so difficult to design effective incentive programs? The first and often most challenging barrier involves ensuring that performance measures motivate the right behaviors. Employees engage in complex activities every day, and companies often get caught in the trap of trying to design metrics and incentives to guide all of them. But the inclusion of too many metrics can become confusing and lead to a loss of focus as well-intentioned employees struggle to figure out what to prioritize.

Instead of trying to create an overly complicated set of performance metrics, successful companies often settle on a limited set of metrics that are tied closely to profitability and then hold people accountable for their performance against those measures. Consider the dilemma facing sales representatives, independent dealers, and manufacturers' representatives who are compensated based on a percentage of sales. Say that a company's margin is 10 percent on high-volume deals. A sales rep who invests twice as much time with the account, selling value and/or getting the customer to reduce costly behaviors like asking for rush orders or production break-ins, might at best be able to increase the profit earned on the deal by an additional 10 percent of sales—doubling the profitability. Even if all that increase is in price however, the sales rep's revenue-based commission increases by only 10 percent because the commission is based on a percentage of sales.

In contrast, consider the tactics of a colleague who spends the same amount of time selling two deals of the same size. However, in order to close two deals instead of just one, she economizes her time by not selling on value and as a result only achieves a 10 percent margin. In this case, both sales reps increase the company's profit contribution by the same amount, but the one who prioritizes volume over profitability earns twice as much commission for doing so. Even worse, if the volume-focused colleague were to offer a 5 percent price cut to close her deals (and thus cutting the profit contribution in half), she would still earn a commission substantially higher, while the sales rep who spent time selling value rather than volume hears about his failure to meet sales goals.

Until you fix these perverse incentives associated with revenue-based measurement and compensation—driving revenue at the expense of profit—it will be difficult to get sales reps to do the right thing. The key to aligning sales incentives with those of the company is to link compensation with profitability. A common objection to doing so is that companies do not want to reveal their costs and because they may have reason in some cases to drive volume even when the immediate payback from sales of that product would be greater from higher margins. For example, selling one product or service cheaply may give the company an advantage in selling other, more profitable products

to the same customer. Fortunately, there is a way to incorporate profit contribution into a sales compensation plan to whatever degree is desired without actually publishing costs data.

The text box “Creating a Sales Incentive to Drive Profit” explains how to implement a compensation system that incorporates margins, and other variables, when determining the credit that a sales rep earns for making a sale. More than just theory, tying compensation to profitability in this way aligns the interests of the sales rep with the financial interests of the company. And it encourages salespeople to pay more attention to value drivers linked to innovative product features, quality improvements, and delivery speed. Once the company aligns sales incentives, salespeople ask for “price exceptions” much less frequently, but they begin clamoring for the other things they need in order to succeed at selling value. At one company, for example, sales reps traded in their company sedans for vehicles in which they could transport product to customers who had an urgent need. Why? Because customers with an urgent need and little time to solicit deals from multiple suppliers could be convinced to buy without demanding greater discounts.

Another challenge to the design of an effective incentive plan is the lack of alignment among performance measures across functions. Salespeople paid for generating profitability will be stymied if undercut in their efforts to raise price by others who are measured on achieving market share or volume. For example, a high-tech manufacturer we worked with had given the finance group ratification rights for price-setting to ensure that prices were set with sufficient financial prudence. One financial policy that was strictly enforced was that all products must maintain a minimum 64 percent gross margin or be eliminated from the product portfolio. The financial staff, which was evaluated on the ability to maintain gross margins, routinely vetoed requests for any prices that fell below the 64 percent threshold regardless of the market conditions or the volume. Not surprisingly, the sales organization, whose commission was based on sales volume, had a very low regard for the business acumen of the financial staff. Moreover, the salespeople would spend hours each week devising creative ways to work around the financial staff to get approval for high-volume but lower-margin deals.

The first step to align metrics and incentives across the organization is to document current incentives for all of those that have been granted decision rights in the pricing process. That documentation enables you to highlight potential conflicts that can detract from effective decision-making. Ideally, the next step will be to change the incentive plan so that decision-makers will share common objectives as they make pricing choices. But changing incentives can be time-consuming and involve considerable upheaval in the organization and thus may not always be a desirable option. In these instances, it is necessary to create policies that constrain how pricing decisions will be made and ensure that the policy compliance is tracked with various price-management analytics. For example, it may be too difficult to tie sales incentives to all costs that could affect the profitability of a customer. Generally, sales incentives reflect only variable product costs. In that case, it may be necessary simply to have a policy that limits what is acceptable. For example,

rather than including cost-of-capital-to-finance receivables in product margins, it may be more practical to have a policy that limits the ability to offer extended payment terms.

### Creating a Sales Incentive to Drive Profit

The key to inducing the sales force to sell value is to measure their performance and compensate them not just for sales volume, but also for profit contribution. Although some companies have achieved this by adding Rube Goldberg-like complexity to their compensation scheme, there is a fairly simple, intuitive way to accomplish the same objective. Give salespeople sales goals as before, but tell them that the sales goals are set at “target” prices. If they sell at prices below or above the “target,” the sales credit they earn will be adjusted by the profitability of the sale.

The key to determining the sales credit that someone would earn for making a sale is calculating the profitability factor for each class of product. To induce salespeople to maximize their contribution to the firm, actual sales revenue should be adjusted by that profitability factor (called the sales “kicker”) to determine the sales credit. Here is the formula:

$$\text{Sales Credit} = [\text{Target Price} - k(\text{Target Price} - \text{Actual Price})] \times \text{Units Sold}$$

In the above equation,  $k$  is the profitability factor (or “kicker”).

In order to calculate sales credits varying proportionally to the product’s profitability, the profitability factor should equal 1 divided by the product’s percentage contribution margin at the target price. For example, when the contribution margin is 20 percent, the profitability factor equals  $5 \times (1.0/0.20)$ . When a salesperson grants a 15 percent price discount, the discount is multiplied by the profitability factor of 5, reducing the sales credit by 75 percent rather than by 15 percent had there been no profitability adjustment. Consequently, when \$1,000 worth of product is sold for \$850, it produces only \$250 of sales credit. But when \$500 worth of product is sold for \$550 (a 10 percent price premium), the salesperson earns \$750 of sales credit ( $\$500 + 5 \times \$50$ ).

Because salespeople are more likely to take a short-term view of profitability and can always move to another company, the most motivating profitability factor for the firm is usually higher than the minimum kicker value based solely on the contribution margin. Obviously, the importance of this adjustment is directly related to the variable contribution margin. The larger the margin and, presumably, the greater the product’s importance to the firm, the greater the profitability factor’s ability to align what is good for the salesperson with what is also good for the company.

This is not merely theory. Among companies that have moved toward more negotiated pricing, many have adopted this scheme in markets as diverse as office equipment, market research services, and door-to-door sales. Although a small percentage of salespeople cannot make the transition to value selling and profit-based compensation, most embrace it with enthusiasm. Managers should be prepared for the consequences, however, because salespeople’s complaints about the company’s competitiveness do not subside. Instead, salespeople who previously fretted about

the company's high prices begin complaining about slow deliveries, quality defects, lack of innovative product features, the need for better sales support to demonstrate value, and so on. In short, sales force attention moves from reflexive gripes about price to legitimate concerns about value drivers the company does or does not provide to customers. This is a good thing.

## SYSTEMS TO SUPPORT THE PRICING FUNCTION

*If you cannot measure it, you cannot improve it.*

Lord Kelvin<sup>17</sup>

Establishing clearly defined processes and decision rights helps ensure that pricing strategy choices will be made in a consistent and repeatable manner. But to ensure that those decisions will also maximize profits, they must be based on accurate, useful information. All too often, crucial pricing choices are based on anecdotal data that may provide a limited, but unconfirmed, understanding of market conditions.

Systems capability for a pricing function requires three key components: (i) Objective data that provides insight into the available pricing opportunity; (ii) a set of protocols for performing analytics that provide relevant, actionable insights; and (iii) tools to perform the calculations and present results in pragmatic ways that generate unambiguous management choices. We discuss each of these components in more detail below.

### Data Needed to Inform the Pricing Function

Some of the data required to inform pricing decisions is quite easy to find. Most organizations, for example, have records of historical sales that contain transacted prices, surcharges for additional services such as shipping, discounts applied, and other descriptors of the transaction. Thinking back to the value cascade, historical transaction data are particularly relevant for evaluating market responses to price changes, identifying sources of “revenue leakage,” such as when discounts are being given to customers who do not qualify for them, or evaluating which customers are most profitable.

Other data sources will be more difficult to obtain. Competitive pricing moves, for example, may be difficult to detect quickly because a competitor may not announce a price cut when they are attempting to gain market share. In this instance, information regarding a competitive price change will typically filter in from customers or field sales representatives. Many retailers have instituted “price match guarantees” in an effort to not only remain price competitive, but also to institute a mechanism to “crowd source” competitive price information in real time.

### Common Protocols for Creating Relevant Insights

The array of analytics that can inform pricing decisions is practically endless, covering data about product costs, cost to serve, purchase trends, customer value, transaction prices, and more. It is beyond the scope of this text to detail all of these analytics and demonstrate how they can best be used to improve strategy choices. Therefore, we focus on two categories that have historically

**EXHIBIT 11-8 Illustrative Data Sources for Pricing Analytics****Transaction Data**

- Customer ID, name, location, type (e.g., direct, wholesale, etc.)
- Sales history: Ideally at the SKU level, by transaction, over the past 12–36 months.
- These data ideally include: product SKU, units shipped, list price, transaction price, COGS, gross margin
- Standard discount level qualified under normal discount guidelines), back-end rebates, etc.
- Deductions, returns and credits, below minimum charges, financing charges, at the level of the customer account
- Service consumption and service costs, by customer
- Shipping cost incurred; shipping cost billed to customer
- Customer P&L reports

**Price-Setting Process**

- Description of current price-setting process
- Policy for granting discounts, rebates, credits: criteria, decision rights, etc.
- Overview of tracking systems used to monitor pricing performance and policy compliance
- Outcomes of prior price experiments and measures of price elasticity

**Syndicated Data**

- Marketing/product line plans
- Secondary research on competitive landscape
- Industry/relevant market trend reports

proven most useful to pricing strategists: Customer analytics and process analytics. In addition, we will review analytics that gauge the efficacy of the pricing decision processes we described in the discussion of the pricing function earlier in this chapter.

### **Customer Analytics to Guide Management Choices**

Customer analytics focus on understanding customer motivations and behaviors that are relevant to pricing choices. We have already examined one of these analyses with the discussion of value assessment in Chapter 2. In the following discussion, we will focus on the analytics of win–loss data and customer profitability, both key inputs for measuring the success of pricing strategies.

### **Analysis of Win–Loss Data**

Tracking the frequency with which a company's offers win or lose to the competition is probably the most valuable piece of information that a company can collect. Amazingly, many do not do so. Instead, they measure performance relative to plan, which is usually based upon extrapolation from past experience when conditions may have been quite different. If overall market demand begins to increase more rapidly than expected, a company can meet its plan but still be losing share to competitors. Failing to recognize quickly that a competitor has improved its product or service, reducing the differentiation value of your offer, will reduce the time available to prevent further loss through either investment in new sources of differentiation or thoughtful, selective price adjustments. On the other hand, a company may fail to achieve expected sales because of an overall decline in market demand even while maintaining its market share. Reacting in that situation with an ill-advised price cut could lead an industry into a price war that compounds the adverse impact of the economic downturn on profitability.

For companies that sell direct, how frequently do customers that request a proposal or that check pricing on a website actually make a subsequent purchase? Comparing current period win–loss ratios with previous periods may require comparing orders from the same geographical area or for purchases with similar end-use application. Significant losses may indicate a need for a price reduction; significant gains may indicate the need for a price increase unless you believe that competitors cannot or will not cut their prices to defend their traditional market shares.

For companies that sell through channels of distribution, market share data is the best indicator of changes in win–loss ratios. However, published market shares usually reflect performance in the all too distant past. To get data that is current enough to act upon, a company can often purchase very current data from samples of stores or from distributors.

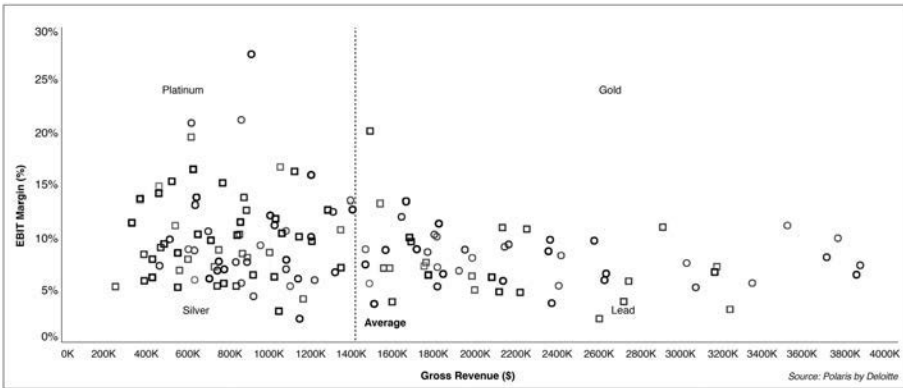
Of course, the ultimate goal is not to maximize the share of “wins,” but to maximize profit contribution earned. Looking at win–loss data alone tells something about performance only if prices are unchanged. If the win rate is up but prices have declined, was the gain in volume sufficient to compensate for the decline in margins? If the win rate is down following a price increase, was the contribution lost from the additional lost bids less than what was gained from the higher prices? Similar analyses can be conducted across regions or customer segments to evaluate differences in price sensitivity that can inform future pricing decisions. A similar analysis of changes in the win–loss ratio can be used to evaluate the effectiveness of advertising or a value-communication campaign.

### **Customer Profitability and Cost to Serve**

Historically, marketers have long tracked *product* profitability as a key metric for managing the product portfolio and allocating marketing resources. In recent years, however, *customer* profitability has emerged as another metric that can be instrumental to marketers seeking to improve profitability. Customer profitability measures are created by assessing prices paid by specific customers and combining them with cost-to-serve measures that allocate costs to customers based upon customer demands and requirements that actually drive them. Creating customer profitability measures often requires some effort because most accounting systems either do not allocate costs at the customer level or do so arbitrarily. But the benefits are generally worth the effort because customer profitability analysis provides actionable guidance to improve the profitability of a customer portfolio.

The data drawn from a financial services firm (shown in Exhibit 11-9) shows one approach for analyzing customer profitability that charts each customer based on average selling price and cost to serve. There are opportunities for profit improvement in each quadrant, and the fact that customers are charted individually allows for highly targeted actions. The “Platinum” customers located in the upper-left quadrant need to be protected. They are sometimes taken for granted because they pay high prices and do not incur a lot of costs. However, it is essential to understand why these customers are paying a premium and to ensure they are getting good value for that price. Otherwise, they may be lost when competitors discover them and offer a better deal. In contrast, the “Lead” customers in the lower-right quadrant merit a different course of action. The most egregious of these “outlaws” in the lower-right

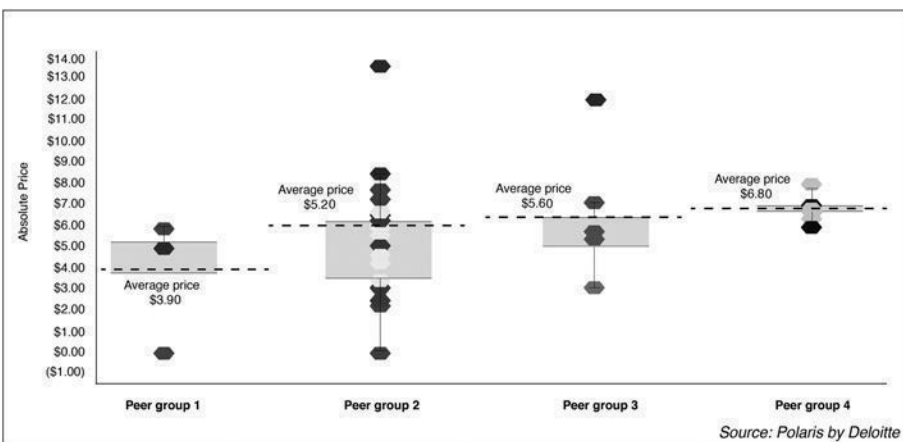
**EXHIBIT 11-9 Customer Profitability Map**



quadrant must be made profitable by either reducing cost-to-serve or raising prices. Raising prices on the unprofitable customers in this quadrant can result in two outcomes; the customer pays the higher price because of the value delivered, or they defect and move to a competitor. This is a low-risk move for the company because it will increase average profitability, and, often, total profitability, regardless of the outcome.

Assessing customer profitability provides high-level guidance for pricing or cost-reduction moves that can improve company profits. Additional profit improvement opportunities can be uncovered by a more detailed individual customer profitability assessment, as illustrated in Exhibit 11-10. This analysis, which details the specific sources of revenue and cost, allows for the comparison of individual customers to segment averages to identify outliers that are consuming too many resources or not generating sufficient revenues. This individual customer profitability analysis, from the same financial services firm, was instrumental in helping management take corrective actions such as increased use of automation and the bulking of claims that helped reduce direct labor costs and processing costs and drove a 37 percent improvement in profitability.

**EXHIBIT 11-10 Customer Profitability by Peer Group**



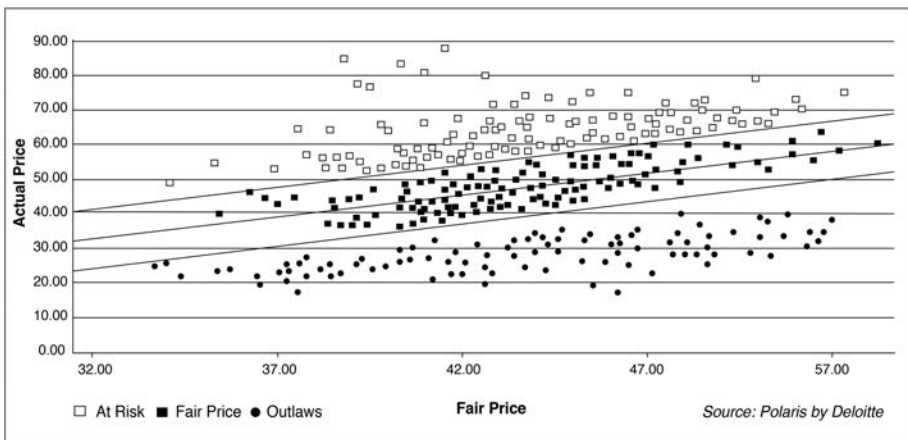
## Process Management Analytics

The intent behind process management analytics is to measure unsatisfactory pricing outcomes (such as profit leaks) and trace them back to the pricing process where they can be “sealed.” Whereas customer analytics focus on strategy development period. Analytics reviewing process efficacy can identify profit leaks in the pricing process such as those caused by unwarranted or unmanaged discounts. Process analytics are generally performed on transaction data containing individual records of each transaction’s products, volume, prices, and discounts. The goal is to identify types of customers or transactions that are getting excessive discounts and then to trace the source of those discounts back to the pricing process in order to seal the profit leak by changing decision rights, developing new policies, or simply ensuring that managers have the right data to make effective decisions. The source of the problem may range from a salesperson granting unwarranted discounts to a pricing policy that is not aligned with market conditions. The process compliance analytics we discuss below, price bands and price waterfalls, will not necessarily reveal what the corrective action for a bad outcome should be. The analytics will, however, help to pinpoint where the problem occurs, which is a useful first step toward correcting it.

## Price Bands

Price banding is a statistical technique for identifying which customers are paying significantly more or significantly less than the band of “peer” prices for a given type of transaction. This analysis identifies customers whose aggressive tactics enable them to earn unmerited discounts and customers who are paying more than average because they have not pushed hard enough for appropriate discounts. Exhibit 11-11 graphs the inconsistent, apparently random pattern of pricing that we often encounter at companies with flawed policies. However, the sales force or sales management team responsible might argue that there is a hidden logic to it—a method to the madness. To the extent that they are right, and sometimes they are, the pricing manager’s job is to make that logic transparent to herself and the pricing steering committee. To the extent that the

EXHIBIT 11-11 Price Band Analysis





variation is truly random, and therefore, damaging the firm's profit and price integrity, the pricing committee's job is to create policies to eliminate it.

There are five steps to a price band analysis:

1. Identify the legitimate factors (service levels, size of orders, geographic region, customer's business type, and so forth) that justify price variations across accounts based on value.
2. Perform a regression of price levels or discount percentages against measures of those legitimate variations:

$$\text{Percent discount} = f(\text{volume, services, region, etc.}) + \epsilon$$

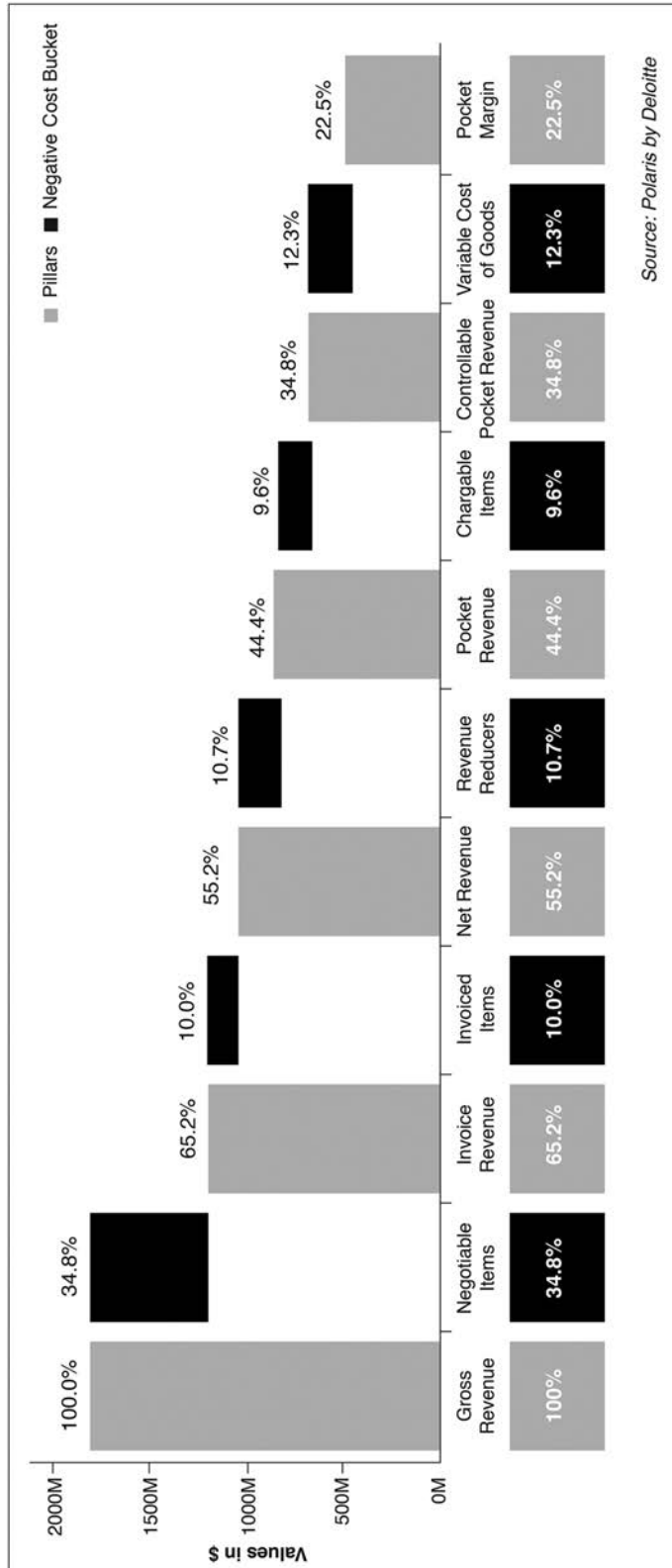
3. For each observation (an actual customer account or order), use the regression equation to estimate the price or discount that this customer would have gotten if given the average discount offered by all sales reps for each of the legitimate discount factors relevant to that customer. This is the "fitted value" of the regression. Label these the "peer prices," which are defined as the average price for transactions or customers with the same characteristics.
4. Plot the actual prices customers pay and compare them to the peer prices along the regression line, and examine the positive and negative differences, as illustrated in Exhibit 11-11. Plot a line one standard deviation above and one standard deviation below the "peer price" line to reveal the outliers. To the extent that price variation is caused by legitimate factors, the variables in the regression will "explain" the actual price distribution well. In other words, the  $R^2$  (called the coefficient of determination) will be high (between 0.8 and 1.0) and the band will be narrow. To the extent that discounting is random, or occurs for reasons that no one is willing to propose as legitimate, the  $R^2$  will be low (below 0.4) and the band around the fair price line will be wide.

Once the analysis is completed, the next step is to brainstorm possible causes of the random variation and identify correlations to test those hypotheses. For example, do a minority of sales reps account for most of the negative variation while a different group accounts for the positive? Is the negative-variation minority composed of the newest reps while the group accounting for the positive differences is more experienced? If so, the solution may be to document what the savvy reps know about selling value and sharing that information with the low-performing group. Other explanations for the random variation could relate to the customer's buying process (is it centralized?), indicating a need for different policies. In one case, price-band analysis revealed a pattern that was ultimately traced to one sales rep in a particularly corrupt market who was taking bribes for price concessions.

### Price Waterfalls

In some companies, the possible sources of lost revenue and profit are many and poorly tracked. In a classic and oft-quoted article, two McKinsey consultants used waterfall analysis to show how simply managing the plethora of discounts can improve company profitability.<sup>18</sup> Exhibit 11-12 illustrates this price waterfall analysis. Although the company might estimate account profitability by the invoice price, there are often many other sources of profit

**EXHIBIT 11-12 Price Waterfall Analysis**



Source: Polaris by Deloitte

leakage along the way. The “pocket price,” revenue that is actually earned after all the discounts are netted out, is often much less. More important, the amount of leakage could range from very small to absurdly high. In one case, a company that analyzed its pocket prices discovered that sales to some of its customers resulted in more leakages than the gross margin at list price! In addition to the salesperson’s commission, there was a volume incentive for the retailer, a commission for the buying group to which the retailer belonged, a co-op advertising incentive, an incentive discount for the distributor to hold inventories, an early payment discount for the distributor, a coupon for the end customer, and various fees for processing the coupons.

Agreements to let the customer pay later, to let the customer place smaller orders, to give the customer an extra service at no cost and so on, all add up. The result can become a much wider variance in pocket prices than in invoice prices. Because companies often monitor such concessions less closely than explicit price discounts, these giveaways tend to grow. This does not mean that such discounts should be stopped; they often provide valuable incentives and can be effective in hiding discounts while still maintaining the important appearance of price integrity. The danger is simply in letting them go unmanaged, without applying rigid policies on their use. For example, after discovering that sales reps waived shipping charges for customers much more often than necessary, a large distributor imposed policies to require more documentation before such orders were processed. That simple policy change resulted in tens of millions more dollars to the bottom line.

## Pricing Systems

Pricing systems generally need to perform two functions: (i) Support the data analytics described above; and (ii) enable the systematic execution of a chosen strategy.

There are several common software tools such as Excel and Tableau that allow most organizations to analyze their transaction data and assess their pricing performance. These tools can be used to generate the price waterfalls and price bands that were described in the prior section and offer a great starting point for assessing a firm’s pricing outcomes. As a firm scales its pricing practices and starts to standardize its analytics, there may be a desire to invest in specialized commercial pricing software products that are able to ingest real-time transaction data, systematically share outputs across the organization, and create automated alerts and interventions.

In addition, a pricing system should also enable an organization to execute its chosen pricing strategy in an efficient and repeatable manner. As an example of how pricing systems can present limitations, one of the authors recalls chaperoning his son’s class outing many years ago that included a stop at a McDonald’s for lunch. Wanting to impress two dozen third-graders with his pricing expertise, he asked the restaurant manager whether he could receive a 10 percent quantity discount for the class. The manager replied that he would gladly do so, but explained that his cash registers did not allow him to apply a percentage discount—each button on the register corresponded to a specific menu item with a pre-programmed price. So the question was rephrased: Would he be willing to provide 24 Happy Meals for the price of 22 Happy Meals? Reframed as

a question of quantity and not percentages, the manager happily obliged because his pricing system allowed him to accommodate such a request. It should of course be noted that some systems limitations are very purposeful—it is not clear that the owner of the franchise would want cashiers to invent new pricing strategies. However, it is useful to consider how choices in systems design can enhance or hinder a company’s ability to execute a given pricing strategy.

Conversely, many of the world’s airlines have invested significantly in systems capabilities that allow them to implement an array of new pricing strategies to capture the value of transporting checked bags, offering window seats, providing in-flight meals or Wi-Fi access, among other services, allowing them to capture over \$38 billion in non-ticket revenues in 2014.<sup>19</sup>

The trick to investing in pricing systems is to ensure that pricing strategy dictates the systems requirements, and not the other way around. For companies that have not yet invested in a clearly articulated pricing strategy, it is likely a mistake to invest in an industrial-grade pricing software system; these systems will offer configuration choices that a less-than-mature pricing organization will be unable to decide on. The reality is that too many companies adopt pricing technology that is seldom used or eventually abandoned. Preparing for change is not about writing a user manual and telling the organization to “go do.” Rather, any systems investment needs to be supported by an organizational culture change that is all about doing things in a new way. To assess a company’s readiness for a new pricing system, it is worth asking a few questions:<sup>20</sup>

- What would the organization like to achieve with the new pricing solution?
- What are the key benefits that the solution will enable? Are these benefits aligned with the broader corporate strategy?
- Has senior leadership fully bought in?
- Who will be affected within the organization and is there a plan to position each stakeholder for success?
- What is the appetite both within and outside of the company to absorb the change?

The answers to these questions will help align the organization against the right type of pricing solution; the less developed the answer to these questions, the more likely a simpler solution is appropriate.

In terms of functionality, there are four distinct elements that are addressed by commercially available systems. The functionality that is common across all providers is the ability to perform **pricing analytics**. Key analytics include the ability to create price waterfalls and price bands that provide an overview of price and margin performance. Another common analytic is segmentation analytics, which can zero in on specific customer types, geographies, product categories and other attributes. Most pricing analytics systems include the ability to build dashboards and alerts to monitor pricing trends and activities.

The second functionality is **price optimization**, which is the execution of statistical models to calculate the price points that optimize against a given objective such as profit, unit volume or market share. Price optimization is valuable in cases where transaction volumes are large and data about all prices

(yours and competitors') is available. Retail grocery products, airlines seats, and hotel rooms are examples where it is easy to buy data for all retail prices available in the market as well as information about the context (e.g., how the product was displayed in the retail store, whether the travel was booked through an online site, a travel agent, or directly). Price optimization algorithms typically ingest large amounts of historical transaction data that includes price as well as promotions and any other marketing activities to estimate the impact of price on sales, or to estimate the impact of context and marketing efforts on the demand price elasticity.

A third functionality offered by many vendors is **price management**, which allows the user to set the rules and conditions that can automatically change prices in dynamic fashion. These tools allow the user to manage price lists by market, customer, and product category. Given the rules-based algorithms that adjust prices, this functionality allows firms to automate mass price updates that reflect real-time changes in market conditions. These systems are typically deeply integrated with a firm's ERP system.

The fourth functionality is called **deal management**, which pulls together the data needed to enable a sales person to negotiate more profitable quotes and contracts, while ensuring that the deal remains within the bounds defined by a firm's pricing and discount policies. This functionality allows a sales person to perform scenario modeling for quotes and contracts when negotiating with a customer and can highlight how a customer might qualify for better pricing—by, for example, consolidating orders to minimize shipping costs, or making a slightly larger quantity to qualify for the next volume discount tier. Deal management is also used to capture any pricing approvals and to load the resulting customer-specific prices and terms into the order entry or ERP system.

For a more detailed discussion of pricing technology, we refer the reader to *Pricing and Profitability Management* by Julie Meehan *et al.*<sup>21</sup>

## MANAGING THE ORGANIZATIONAL CHANGE PROCESS

Organizational structure, decision rights, processes, and incentives are important levers that provide managers with the opportunity to make pricing choices in different and more profitable ways. Transforming an organization into one that commits to and executes on the principles of strategic pricing requires that managers act in ways that may run counter to their past experience and training. Some individuals may be resistant to change because they legitimately believe that the new approach is less effective, while others may be resistant because their compensation would be adversely affected under the new approach. Regardless of the reason, individuals must be motivated to go through a potentially uncomfortable transition process before accepting a new pricing strategy.

There are a number of levers that can be used to facilitate adoption of the new approach including clear leadership from senior management and demonstrating successes through trial projects. Successful change efforts require an integrated and consistent use of these change levers to overcome organizational inertia and effect change.

## Senior Management Leadership

One of the most important actions that leaders can take to encourage adoption of strategic pricing is to truly “talk the talk and walk the walk.” All too often, senior managers indicate strong support for a new pricing strategy and then revert to ad hoc discounts the first time a customer asks for a lower price. Not only must senior leaders avoid falling back on old pricing practices, they must actively seek high-profile opportunities to demonstrate support for the new strategy. A telecommunications company we worked with had invested heavily to develop a more strategic approach to pricing in its consumer markets. The implementation plan included extensive training for the sales team and conducting a couple of high-profile negotiations with the new approach to demonstrate its effectiveness. The company seemed to be on its way to making a successful transition when the COO, who had been a tireless advocate for the strategy, began to respond to pressure from the board to meet sales targets by offering “one-time” discounts to win business. As soon as the regional sales managers learned about these discounts, they demanded the right to negotiate similar discounts. It was not long before these pricing “exceptions” became the norm across the organization and the pricing strategy was abandoned. In this example, the COO missed a critical opportunity to send a clear message about the organization’s commitment to the new strategy and, instead, began the process that left the organization stuck in its old pricing habits.

Senior managers have many opportunities to signal their support of a new pricing strategy. Specific actions they should consider include the following:

1. Mandate a comprehensive training program to (i) introduce the strategic pricing concepts and (ii) demonstrate what “good looks like” based on company specific examples of recent wins with the new approach.
2. Build in regular progress review sessions with business leaders to discuss challenges and to hold individuals accountable for progress.
3. Seize opportunities to communicate support for the new approach such as internal blogs, newsletters, and speeches.
4. Ensure that other senior leaders are actively involved in the decision-making process so that they can understand the challenges and model desirable behaviors.

## Demonstration Projects

Perhaps the most important method for helping managers understand and adopt strategic pricing is the use of demonstration projects that test the new approach and provide an example of “what good looks like.” Successful demonstration projects can be pivotal in building momentum for the new approach and should be given as much exposure as possible. They should be designed to demonstrate the strategy and provide feedback and real outcomes from the commercial teams. They should be focused and of limited duration, or they risk losing the attention of the organization and undermining interest in the new strategy. A good example is when an entertainment company tested a new pricing strategy and price points by selecting a very specific post-holiday

period and one focused metric to track growth in total gross profit. By focusing on a discrete period and clearly defining success, the organization built not only interest in the new strategy, but also credibility when it quickly declared the strategy a success and began a full rollout.

A challenge that must be overcome when designing a demonstration project is how to define a baseline for measurement. Skeptical managers across the organization will ask, “How do I know if it was the pricing strategy that drove the outcomes when there are so many moving parts in the market and with our own commercial activities?” The best and quickest way to address this concern is to treat the demonstration project as a price experiment in which two similar groups of customers are selected. One group receives the new strategy and new prices while the other maintains current prices and policies. This provides an objective measure of the effect of the new strategy and builds credibility within the organization. The consumer entertainment company did a thoughtful job of defining a control sample of similar products that were used to establish a baseline against which the new strategy could be tested. The positive results of the test were then distributed to everyone in the sales organization through webcasts and sales meetings. The test contributed significantly to the organization’s acceptance of the new prices.

One of the major benefits of demonstration projects is that the leaders of the project often become internal champions for the change effort. There is no better spokesperson for strategic pricing than someone who has experienced the outcomes first-hand. This is especially true for pricing, where even small barriers are seen as reason for abandoning an effort and sticking with the tried and true. Having more managers express confidence in the new pricing approach legitimizes the effort and provides confidence that it can lead to success. While having the most senior leader supporting an effort can be extremely important to success, there is also great value in having junior managers’ support as they face challenges similar to their peers, giving them strong credibility.

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## Summary

Progressive companies have been doing more than just worrying about pricing—they are actively making pricing a core part of their strategic capabilities. To drive profits in a low-growth economy, many are graduating from attempts to improve tactical price reactions to developing the capability to drive ongoing price improvement proactively. More than ever before, successful companies are building their businesses—including core products, ancillary services, and the business model itself—to support a pricing strategy rather than the other way around. Traditional industry leaders such as General Electric<sup>22</sup> and Procter & Gamble<sup>23</sup> have made explicit corporate decisions to change their focus from top-line

growth to driving profitability growth. As they do so, they are changing not only the prices they charge, they are fundamentally altering the way they go to market, all with the aim of increasing the profitability of a sale.

Building pricing into a source of competitive advantage is one of the most challenging activities facing commercial leaders today. Success requires a combination of structural changes, such as building organizational alignment on the role of pricing, it requires investment in tools and data to inform decisions and monitor their implementation, and it requires building the knowledge base of the organization to understand the objectives of value-based pricing. The degree

of change is substantial! We would be remiss if we did not acknowledge that the change process can often take years to complete. However, the data<sup>24</sup> clearly show that the financial results justify the

effort—firms that successfully complete the transformation to value-based pricing and build the supporting capabilities are significantly more profitable than their industry peers.

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## Ethics and the Law

### Understanding the Constraints on Pricing

*Illegal price fixing is an “actual or potential threat to the central nervous system of the economy.”*

Justice William O. Douglas<sup>1</sup>

When making pricing decisions, the successful strategist must consider not only what is profitable, but also what will be perceived as ethical and legal. Unfortunately, good advice on both of these issues is all too often unavailable or misleading. Attorneys who do not specialize in antitrust law tend to be overly conservative—advising against activities that are only sometimes illegal or that could trigger an investigation. In fact, benign changes in questionable pricing policies are often all that is necessary to make them both profitable and defensible. On the other hand, product and sales managers eager to achieve quarterly objectives will sometimes fail to consider these constraints at all, resulting in costly condemnations of their companies in courts of law or public opinion. This chapter is intended to raise awareness of the issues and educate managers sufficiently enough to question the advice received.

#### **ETHICAL CONSTRAINTS ON PRICING**

“Perhaps no other area of managerial activity is more difficult to depict accurately, assess fairly and prescribe realistically in terms of morality than the domain of price.”<sup>2</sup> This oft-quoted assessment reflects the exceptional divergence of ethical opinions with respect to pricing. Even among writers sympathetic to the need for profit, some consider it unethical to charge different prices unless they reflect differences in costs, while others consider pricing unethical unless prices are set “equal or proportional to the benefit received.”<sup>3</sup> Consequently, there is less written on ethics in pricing than on other marketing issues, and what is written tends to focus on the easy issues, like deception and price-fixing.<sup>4</sup> The tougher issues involve strategies and tactics for gaining profit.

This book is intended to help managers capture more of the value created by the products and services they sell. In many cultures, and among many who

promulgate ethical principles, such a goal is morally reprehensible. Although this opinion was once held by the majority, its popularity has generally declined over the past three centuries due to the success of capitalism and the failure of collectivism to deliver an improvement in material well-being. Still, many people, including many in business practice and education, believe that there are legitimate ethical constraints on maximizing profit through pricing.

It is important to clarify your own and your customers' understanding of those standards before ambiguous situations arise. The topology of ethical constraints in pricing illustrated in Exhibit 12-1 is a good place to start. Readers should determine where to draw the line concerning ethical constraints—for themselves and their industry—and determine as well how other people (family, neighbors, social groups) might view such decisions.

Most people would reject the idea of zero ethical constraints, in which the seller can dictate the price and terms and force them on an unwilling buyer. Sale of “protection” by organized crime is universally condemned. The practice of forcing employees in a one-company town to buy from the “company store” is subject to only marginally less condemnation. Even when the government itself is the seller that is forcing people to purchase goods and services at a price (tax rate) it sets, people generally condemn the transaction unless they feel empowered to influence the terms. This level of ethical constraint was also used to condemn the “trusts” that, before the antitrust laws, sometimes used reprehensible tactics to drive lower-priced competitors out of business. By denying customers alternative products, trusts arguably forced them to buy theirs.

Ethical level one, embodied in all well-functioning, competitive market economies, requires that all transactions be at least voluntary. Historically,

**Exhibit 12-1 When Is Price Ethical? Ethical Constraints**

Level	The Exchange Is Ethical When	Implications/Proscription
1	The price is paid voluntarily.	“Let the buyer beware.”
2	“... and is based on equal information.”	No sales without full disclosure (used-car defects, risks of smoking).
3	“... and does not exploit buyers' 'essential needs'.”	No “excessive” profits on essentials such as life-saving pharmaceuticals.
4	“... and is justified by costs.”	No segmented pricing based on value. No “excessive” profits based on shortages, even for non-essential products.
5	“... and provides equal access to goods regardless of one's ability to cover the cost.”	No exchange for personal gain. Give as able and receive as needed.

some of the fastest-growing economies that produced the greatest opportunity to escape poverty condoned any and all voluntary transactions. The legal principle of *caveat emptor*, “Let the buyer beware,” characterized nearly all economic transactions in the United States prior to the 20th century. In such a market, people often make regrettable purchases (for example, expensive brand-name watches that turn out to be cheap substitutes, or stocks in overvalued companies). On the other hand, without the high legal costs associated with meeting licensing, branding, and disclosure requirements, new business opportunities abound even for the poor—making unemployment negligible.

Ethical level two imposes a more restrictive standard, condemning even voluntary transactions by those who would profit from unequal information about the exchange. Selling a used car without disclosing a known defect, concealing a known risk of using a product, or misrepresenting the benefits achievable from a product are prime examples of transactions that would be condemned by this ethical criterion. Thus, many would condemn selling land in Florida at inflated prices to unaware out-of-state buyers, or selling lottery tickets to people unlikely to recognize their poor return. Since sellers naturally know more about the features and benefits of products than most consumers do, they may have an ethical duty to disclose what they know completely and accurately.<sup>5</sup>

Ethical level three imposes a still more stringent criterion: that sellers earn no more than a “fair” profit from sales of “necessities” for which buyers have only limited alternatives. This principle is often stated as follows: “No one should profit from other people’s adversity.” Thus, even nominally capitalist societies sometimes impose rent controls on housing and price controls on pharmaceutical costs and physicians’ fees. Even when this level of ethical constraint is not codified into law, people who espouse it condemn those who raise the price of ice during a power failure or the price of lumber following a hurricane, when the demand for these products soars.

Ethical level four extends the criteria of ethical level three to all products, even those with many substitutes and not usually thought of as necessities. Profit is morally justifiable only when it is the new minimum necessary to induce companies and individuals to make decisions for the good of less-advantaged members of society.<sup>6</sup> Profit is ethically justifiable only as the price society must pay to induce suppliers of capital and skills to improve the well-being of those less fortunate. Profits from exploiting unique skills, great ideas, or exceptional efficiency (called “economic rents”) are morally suspect in this scenario unless it can be shown that everyone, or at least the most needy, benefits from allowing such profits to be earned, such as when a high-profit company nevertheless offers lower prices and better working conditions than its competitors. Profits from speculation (buying low and selling high) are clearly condemned, as is segmented pricing (charging customers different prices to capture different levels of value), unless those prices actually reflect differences in cost.

Ethical level five, the most extreme constraint, is inconsistent with markets. In some “primitive” societies, everyone is obliged to share good fortune with those in the tribe who are less fortunate. “From each according to his ability, to each according to his need” is the espoused ethical premise of Marxist societies and even some respected moral philosophers. Those that have actually tried to put it into practice, however, have eventually recoiled at the

brutality necessary to force essentially self-interested humans to “give according to their abilities” without reward. Within families and small, self-selected societies, however, this ethical principle can thrive. Within social and religious organizations, members often work together for their common good and share the results. Even within businesses, partnerships are established to share, within defined bounds, each other’s good and bad fortune.

For each level of ethical constraint on economic exchange, one must determine the losses and gains, for both individuals and societies, that will result from the restriction. What effect does each level have on the material and social well-being of those who hold it as a standard? Should the same standards be applied in different contexts? For example, is your standard different for business markets than it is for consumer markets? Would your ethical standards change when selling in a foreign country where local competitors generally hold a higher or lower ethical standard than yours? In assessing the standards that friends, business associates, and political representatives apply, managers must ask themselves if their personal standards are the same for their business as well as for their personal conduct. For example, would they condemn an oil company for earning excess profits as a result of higher crude prices, yet themselves take excess profits on a house that had appreciated substantially in a hot real-estate market? If so, are they hypocrites or is there some justification for holding individuals and firms to different standards?

Although we certainly have our own beliefs about which of these ethical levels is practical and desirable in dealing with others and would apply different standards in different contexts, we feel that neither we nor the people who claim to be experts on business ethics are qualified to make these decisions for someone else. Each individual must make his or her own decisions and live with the personal and social consequences.

Regardless of one’s personal ethical beliefs about pricing, it would be foolish to ignore the legal constraints on pricing. Antitrust law in the United States has developed over the years to reflect both citizens’ moral evaluations of companies’ actions and companies’ attempts to get laws passed that protect them from more efficient or aggressive competitors. As the summary below illustrates, the meaning of these laws changes over time as courts respond to changing social attitudes and the placement of judges with differing political views.

## **THE LEGAL FRAMEWORK FOR PRICING**

When making pricing decisions, the strategist must consider not only what is profitable, but also what is lawful. Since the late 19th century, the United States has been committed to maintaining price competition through establishing and enforcing antitrust policy. Statutes, regulations, and guidelines, as well as countless judicial decisions, have defined what constitutes anticompetitive pricing behavior and the rules under which the government and private parties may pursue those who engage in it.

For more than 125 years, U.S. antitrust law has responded to a complex and dynamic marketplace by being both of these things, resulting in policies that are always being scrutinized and questioned and sometimes stretched and revised. The overall trend in the United States for the last several decades

has been to move away from judging behavior based on economic assumptions toward focusing on demonstrable economic effect, something that has fostered a great deal of contemporary pricing freedom. Of course, a necessary companion to evolving policies, as well as the lag time sometimes necessary for the law to catch up with the marketplace, is ambiguity. In return for some uncertainty, there is more latitude for businesses to cope creatively with both new and old challenges.

This section discusses key aspects of the law regarding pricing, focusing primarily on that of general applicability in the United States at the federal level.<sup>7</sup> Due to its long history, U.S. law in the pricing area has served as a model for other parts of the world, including the European Union (E.U.) and Japan. For example, E.U. antitrust law historically prohibited such things as territorial restrictions on intermediaries that interfered with cross-border trade, but a “safe harbor” became effective in 2000.<sup>8</sup> That, much like the change in the U.S. view that occurred more than 20 years earlier, recognizes a supplier’s legitimate interest in controlling how its products are resold under certain circumstances.

In the United States, the antitrust laws are enforced by both government and private parties. The Department of Justice is empowered to bring criminal and civil actions, although the former are reserved primarily for price fixing and hardcore cartel activity.<sup>9</sup> At the same time, the Federal Trade Commission (FTC) may bring civil actions,<sup>10</sup> as can private parties. Often, civil plaintiffs pursue injunctions to stop certain conduct and, in the case of private parties, they may also or alternatively seek three times their actual economic damages (something known as “treble damages”), as well as their legal fees and court costs.<sup>11</sup> While the volume of private antitrust litigation dwarfs that brought by the government, private suits often follow significant government cases.

### **The Effect of Sarbanes–Oxley on Pricing Practices**

In direct response to highly visible corporate finance scandals involving such companies as Enron and WorldCom, the Sarbanes–Oxley Act—a significant and sweeping piece of securities reform legislation—became law in 2002.<sup>12</sup> Because one of the main purposes of the act is to facilitate more accurate public disclosure of financial information and provide accountability measures in reporting and monitoring of corporate conduct, its impact on pricing practices has been in general to make antitrust compliance more rigorous than had been present in many companies before the law was passed. While most of the requirements of Sarbanes–Oxley apply only to an “issuer,” or a publicly traded or listed company,<sup>13</sup> some commentators have recommended that even private companies should strive to comply with the full demands of this law.<sup>14</sup>

Among other things, Sarbanes–Oxley specifically provides for stricter financial and auditing procedures and reporting. For example, the act requires that an issuer’s chief financial officer (CFO) and chief executive officer (CEO) certify financial reporting documents (such as the company’s quarterly and annual reports) and make the knowing certification of non-compliant financials a criminal offense.<sup>15</sup> The statute also outlines disclosure procedures and internal accounting control mechanisms, as well as whistleblowing provisions, including language that makes retaliation against truthful informants subject to criminal penalties of a fine or up to ten years’ imprisonment, or both.<sup>16</sup>

While Sarbanes–Oxley was not created with the express intent of policing antitrust compliance in pricing matters, the broad scope of the act clearly affects this area. Some of the most obvious examples in the context of pricing policies and related issues include tighter controls on the accounting and disclosure procedures relating to the treatment and use of discounts, allowances and promotional funds, regardless of whether a company is giving or getting them. As a result, companies are well advised, among other things, to address in their internal control policies requirements and guidelines for pricing and pricing actions, process documentation for such actions and a procedure for investigating and responding to employee reports of internal violations.

## PRICE FIXING OR PRICE ENCOURAGEMENT

In an effort to reduce or avoid market risks, businesspeople have long been interested in setting prices with their competitors or dictating or influencing the prices charged by their downstream intermediaries, such as distributors, dealers, and retailers. Over the years, U.S. law has taken a rather dim view of this behavior. At the same time, it is now clear that there is some flexibility in what companies that collectively affect market prices can do, but the biggest changes are in the area of distribution channels, where price setting is lawful if done properly.

There are two types of price fixing: horizontal and vertical which the law treats differently. In horizontal price fixing, competitors agree on the prices they will charge or key terms of sale affecting price. In vertical price fixing, a supplier and a reseller agree on the prices the reseller will charge or the price-related terms of resale for the supplier's products. However, where an intermediary, such as an independent sales representative, does not take ownership of the supplier's products and acts only as the supplier's agent, there cannot be any vertical price fixing because the law views the sale as taking place directly between the supplier and the end-user, with the intermediary serving merely as a conduit. Consequently, the supplier is only setting its own prices and terms of sale.<sup>17</sup>

The primary law affecting price fixing is Section 1 of the Sherman Act, an 1890 statute that prohibits "[e]very contract, combination . . . or conspiracy in restraint of trade."<sup>18</sup> The contract, combination, or conspiracy requirement necessarily means that there must be an agreement between two or more individuals or entities. As a result, the law does not affect unilateral behavior.<sup>19</sup> Moreover, in the horizontal context, the Sherman Act does not ban merely imitating a competitor's pricing behavior (something called "conscious parallelism").<sup>20</sup>

In rare cases, there are written contracts or other direct evidence of price-fixing conspiracies. Far more often, evidence of agreement must be inferred from the actions of the parties involved. Although conscious parallelism by itself is not enough to establish an agreement, when uniform or similar behavior is coupled with one or more "plus factors," courts have found illegal concerted activity. Perhaps the most powerful of these factors is if the conduct in question would be against the self-interest of each party if it acted alone, but consistent with their self-interest if they all behaved the same way, such as the uniform imposition of unpopular restrictions or price increases in the face of surplus.<sup>21</sup> Another factor is the opportunity to collude (often shown by communications between or among the parties), followed by identical or similar

actions, although the probative effect of such opportunity or communications can be undercut by legitimate business explanations.<sup>22</sup>

Once concerted action has been found, the next step is to evaluate it. Case law has further refined Section 1 of the Sherman Act to require two levels of proof, depending on the nature of the alleged offense. Some offenses are considered to be “per se” illegal, while others are analyzed under the “rule of reason.” Per se offenses require that the presence of the objectionable practice be proven and that there be antitrust injury and damages, while offenses subject to the rule of reason add a third element—that the practice at issue be unreasonably anticompetitive. In general, it is easier to prove a violation under the per se test and more difficult to do so under the rule of reason, because the latter starts with a presumption of legality and requires detailed economic analysis and a balancing of pro-competitive and anticompetitive effects. Of course, the rule of reason also provides defendants with the opportunity to justify their behavior, something denied under the per se rule.

Historically, all concerted activities affecting price were presumed to be unreasonably anticompetitive on their face and, therefore, per se illegal. However, during the last 40 years or so, the U.S. Supreme Court has placed more emphasis on showing demonstrable economic effect rather than relying on assumptions, so there has been an erosion of per se application to both horizontal and vertical pricing issues.

### **Horizontal Price Fixing**

In the horizontal arena, direct price fixing—competitors in the stereotypical smoke-filled room agreeing to set prices or rig bids—remains per se illegal. The same treatment is accorded to indirect price fixing, where there is an ambiguous arrangement between competitors that a court has determined constitutes illegal price fixing after conducting a detailed factual review or market analysis.<sup>23</sup>

However, when a restriction on price is merely the incidental effect of a desirable pro-competitive activity (sometimes referred to as “incidental price fixing”), it is now clear that the more forgiving rule of reason applies. This point is illustrated by *National Collegiate Athletic Association v. Board of Regents*, where the U.S. Supreme Court applied the rule of reason and noted that association rules covering athletic equipment standards and schedules were appropriate, but those that limited the television exposure of member football teams were an unreasonable restriction on output that unlawfully increased prices.<sup>24</sup>

## **RESALE PRICE FIXING OR ENCOURAGEMENT**

### **Vertical Price Fixing**

Vertical price fixing by agreement was considered per se illegal in the U.S. until a pair of modern-day Supreme Court cases spaced ten years apart established the current rule that all forms of resale price setting—maximum, minimum or exact—are judged under federal law by the rule of reason. The 1997 decision in *Khan* overturned a 29-year-old case to declare that the rule of reason applies to maximum price agreements, while the far more controversial *Leegin* decision in 2007 jettisoned a 96-year-old precedent by extending *Khan* to minimum



prices (and the analytically equivalent exact prices).<sup>25</sup> Likely because maximum price setting has the effect of holding down prices, while minimum or exact prices prop them up, bills have been introduced both in Congress and at the state level to legislatively overturn *Leegin* by restoring the per se rule to minimum resale price agreements, but, so far, only Maryland's efforts have been enacted into law.<sup>26</sup> While application of the rule of reason in this context is too new to assess its effect and the empirical evidence supporting the consumer welfare arguments in favor of going back to the per se rule is lacking, the emotion seems to have diminished, but has not disappeared.<sup>27</sup>

However, regardless whether *Leegin* survives, none of the legislative efforts aimed at minimum resale price agreements affect the Supreme Court's 1919 ruling in *Colgate* that setting maximum, minimum or exact resale prices without an agreement (that is, unilaterally) is not illegal price fixing prohibited under the Sherman Act.<sup>28</sup> As a result, a supplier may announce a price at which its product must be resold (that is, establish a ceiling, floor, or exact price policy) and refuse to sell to any reseller that does not comply, as long as there is no agreement between the supplier and its reseller on what resale price levels to set. Even when resellers follow the supplier's resale price policy, there is no unlawful agreement. With this latitude, many manufacturers of desirable branded products have successfully discouraged discounting (often in response to corrosive price competition over the internet) in such diverse industries as consumer electronics, furniture, appliances, apparel, footwear, sporting goods, tires, luggage, handbags, agricultural supplies, electronic test equipment, and automotive aftermarket products.

A frequent justification given for minimum or exact resale price policies is to permit resellers sufficient margin to provide a selling environment that is consistent with the supplier's objectives for its products, including brand image. For example, the supplier may want knowledgeable salespeople, showrooms, substantial inventory, and superior service. Of course, such policies also may help support higher supplier margins. Sometimes, the imposition of such policies is sought by resellers to insulate them from price competition. As long as there is no agreement on price levels, such requests, even if acted upon by the supplier, are not unlawful.<sup>29</sup>

Pricing policies may be used broadly or selectively to cover everything from a single product to all of those in a supplier's line. Similarly, they can be used in certain geographic areas and with specific channels of distribution in which price erosion is a problem, or they can be used throughout the country. In any event, a policy violation typically requires that the supplier stop selling the offending reseller the products involved, although it also is permissible to pull a product line or all of the supplier's business.<sup>30</sup> When and if the supplier wishes to resume selling is the supplier's unilateral decision, although some cases suggest that warnings, threats, and probation short of termination support the inference that some form of agreement has been reached.

To make such a policy stick, the supplier must generally have brand or market power. Otherwise, resellers simply won't bother to follow the policy, as there are plenty of substitutes available. Ironically, it is those highly desirable products that are most susceptible to discounting anyway, so the requisite power is typically present. In addition, it is important to note that resale price policies have a vertical reach that is limited to one level down the distribution channel. If all resellers buy directly from the manufacturer, this restriction

poses no problem, but if a significant amount of sales are made through multiple levels of distribution, a policy will be too porous to be effective. In other words, a manufacturer can control a direct-buying retailer's sell price by policy, but it can't reach that of a retailer that buys from a wholesaler. To address this problem, the manufacturer may "jump over" the wholesaler by making a sale directly to the retailer, or it may convert the wholesaler into an agent for the purpose of such a sale. Alternatively, the policy may be circulated to both direct- and indirect-buying resellers, while wholesalers are permitted to sell to "approved" resellers only. One way to remain on the approved list is to comply with the policy.

Resale price policies are potent, but the rules for managing them within the law are necessarily stringent. Careful implementation keeps otherwise lawful programs from going astray. This means that any form of agreement regarding resale prices must be avoided. There must be no resale pricing contracts, no assurances of compliance, and no probation. Because this area can be a legal minefield, it's crucial to understand it. At the same time, many companies have adopted such programs with low risk and considerable success.<sup>31</sup>

### **Direct Dealing Programs**

Another way to control the prices charged to end-users is for the supplier to sell them directly or, constructively, by the use of agents. When the supplier agrees with the end-user on price, but the latter cannot handle delivery of large quantities or maintain sufficient inventory to justify direct shipments from the supplier, some suppliers look to a reseller to fill the order out of the reseller's warehouse. This can be done by consignment or by the supplier buying back inventory from the reseller immediately prior to its transfer to the end-user, so, in either event, the sale runs directly from the supplier to the end-user. The reseller becomes the supplier's warehousing and delivery agent and is compensated by the supplier for performing only these functions.

When the supplier has negotiated the price to the end-user, but the reseller has or retains the title, the supplier has another alternative. Under the "reseller's choice" approach, the reseller may either choose to sell the product to the end-user at the price set by the supplier or refuse to do so. Even if the reseller agrees to sell at the contracted price, there is no per se illegal price fixing, as this practice is subject to the rule of reason.<sup>32</sup>

### **Resale Price Encouragement**

Instead of dictating a resale price by agreement, policy, or direct sale, some suppliers encourage desirable resale pricing behavior by providing financial or other incentives, such as advertising allowances to promote certain prices. Although these practices are judged under the rule of reason, the provision of incentives is subject to the prohibitions in the Robinson-Patman Act against price and promotional discrimination.<sup>33</sup>

In the area of price advertising, a common practice is to use a Minimum Advertised Price (MAP) program, although the underlying concept could also be used for maximum or exact prices. Under this approach, the reseller receives an advertising allowance (often in the form of co-op advertising funds)

in return for adhering to the appropriate price in advertising, in a catalog, or over the internet.<sup>34</sup> Some companies pay an explicit allowance (such as a percentage rebate on purchases), while others employ an implicit allowance stating that failure to follow program requirements results in the loss of the allowance and an increase in price. The latter is found in consumer electronics. Alternatively, a supplier sets the advertised price (but not the selling price) and cuts off all resellers that don't allow it.

A variant on MAP programs is group or shared-price advertising, through which a supplier sponsors an ad, but resellers can be listed in it only if they agree to sell at the promoted price during the period indicated. Again, resellers that wish pricing freedom may decline to be in the ad, and, because of the voluntary nature of this approach, there is no per se illegality.

Another option is target-price rebates. Here, the supplier rewards the reseller with financial incentives that vary depending upon how close the retailer's resale prices are to the target set by the supplier. This practice requires point-of-sale (POS) reporting, typically easier to get in the consumer area due to the widespread use of scanners, but becoming more common in the industrial marketplace.

## PRICE AND PROMOTIONAL DISCRIMINATION

Although economists maintain that the ability to charge different prices to different customers promotes efficiency by clearing the market, U.S. law on that issue has focused on maintaining the viability of numerous sellers as a means to preserve competition. Consequently, while lawful price discrimination has been limited since 1914, the Robinson–Patman Act amended existing legislation in 1936, so this entire area is commonly referred to by the name of the amendment.<sup>35</sup>

This complex, Depression-era legislation was enacted to protect small businesses by outlawing discriminatory price and promotional allowances obtained by large businesses, while exempting sales to government or “charitable” organizations for their own use.<sup>36</sup> At the same time, the emergence of contemporary power buyers through internal growth or consolidation (large, big-box retailers and hospital buying groups), as well as supplier efforts to make discounts and allowances provided to customers more efficient, have forced or encouraged sellers to provide lawful account-specific pricing and promotions by creatively finding ways through the Robinson–Patman maze. This trend is likely to continue, as further consolidation and evolving distribution channels (brought on by e-commerce, among other things) will demand and reward more sophisticated differentiation in pricing.

As is the case with the other antitrust laws, the Department of Justice, the FTC, and private parties may each bring Robinson–Patman cases, although the enforcement agencies have not focused on this area for some time. Indeed, the Justice Department has criminal powers in this area that have gone unused for many years, while the FTC today brings few significant cases in this area after being particularly active through the 1970s. Private suits on behalf of businesses (consumers have no standing to sue under the statute) account for most of the enforcement activity.<sup>37</sup> Successful plaintiffs are entitled to the same remedies as those available under the antitrust laws discussed previously (injunctions, treble damages, attorneys' fees and costs).

## Price Discrimination

Keep in mind that discrimination in price is not always unlawful. In order to prove illegal price discrimination under the Robinson–Patman Act and assuming that the supplier sells in interstate commerce, each of five elements must be present:<sup>38</sup>

1. *Discrimination.* This standard is met simply by charging different prices to different customers. However, if the reason for the difference is due to a discount or allowance made available to all or almost all customers (like a prompt payment discount), but some customers choose not to take advantage of it, the element of discrimination drops out, ending the inquiry. This is known as the “availability defense.”

2. *Sales to Two or More Purchasers.* The different prices must be charged on reasonably contemporaneous sales to two or more purchasers—a rule that permits price fluctuations. In other words, it is inappropriate under the statute to compare two widely separated sales in a highly volatile market. Yet, if prices typically change annually or semiannually, a sale made in January may be compared with one made in March.

In addition, offering different prices is not enough. Actual sales or agreements to sell at different prices must exist. For example, if two electrical supply distributors seek special pricing from the manufacturer to bid on a construction job or an integrated supply contract that only one will get, the manufacturer may, if it is careful, give one a better price than the other, because in doing so, it is providing two offers, but making only one sale.<sup>39</sup>

3. *Goods.* Robinson–Patman applies to the sale of goods only (“commodities” in the statute), so services—such as telecommunications, banking, and transportation—are not covered.<sup>40</sup> When a supplier sells a bundled offering, such as repair services that include parts or computer hardware that includes maintenance services, Robinson–Patman is relevant only if the value of the goods in the bundle predominates. Also, it is possible to turn goods into services if the manufacturer procures raw materials and produces and stores the products on behalf of the customer, with the customer owning the inventory every step of the way and bearing the risk of loss.

4. *Like Grade and Quality.* The goods involved must be physically or essentially the same. Brand preferences are irrelevant, but functional variations can differentiate products. In a key case, the Supreme Court stated that a branded product and its physically and chemically identical private-label version must be priced the same by the manufacturer.<sup>41</sup> While the distinctions drawn in the case law sometimes appear arbitrary, meaningful functional or physical variations can result in different products that legitimize different prices. For example, two air conditioners that have meaningful differences in cooling capacity are distinct products, even if they otherwise are or appear physically identical.

5. *Reasonable Probability of Competitive Injury.* The law generally focuses on injury at one of two levels. The first, called “primary line,” permits a supplier to sue a competitor for the latter’s discriminatory pricing. But here the law also requires that the supplier’s discriminatory pricing be below its cost, something designed to drive its rival out of business or otherwise injure competition in the market as a whole (called “predatory intent”), rather than to merely take some incremental market share. Moreover, the structure of the

market must be such that the discriminating supplier can raise prices after it disposes of the targeted competitor or that market injury otherwise is threatened through reduced output.<sup>42</sup> Not surprisingly, there are few contemporary primary-line cases due to this tough standard.

Far more common is “secondary-line” injury, where a supplier’s disfavored reseller or end-user customer may sue the supplier for price discrimination. However, the law is clear that only competing customers must be treated alike. To the extent that customers do not compete due to their locations or the markets they serve, different prices are appropriate under the Robinson–Patman Act. If these customer distinctions do not occur naturally, they may be introduced or formalized by contract or policy through the use of vertical non-price restrictions. (For more on this point, see the later section in this chapter on “Vertical Non-Price Restrictions.”)

### Defenses to Price Discrimination

Even if all five price-discrimination elements are present, there are three defenses that may be used to help avoid what otherwise is unlawful discrimination.<sup>43</sup>

1. *Cost Justification*. This defense permits a price disparity if it is based on legitimate cost differences. For example, freight is usually less on a per case basis for a truckload shipment. However, while there is no requirement to pass on any savings, if the supplier does so, the law states that some or all of the actual savings may be passed on to the customer, but not a penny more.

One common problem area is volume discounts, particularly those that are stair-stepped with large differences in amount between levels or those that go back to the first dollar. Perhaps this structure reflected real cost differences many years ago when it was adopted by the supplier, but unless the underlying cost analysis is regularly updated, the discounts probably do not track today’s costs. Indeed, the dynamic nature of business and the precision required to support this defense make it difficult to apply successfully, although the sophistication of activity-based costing holds a great deal of potential. Indeed, some manufacturers keep profit-and-loss statements on their customers and adjust their pricing accordingly.

2. *Meeting Competition*. Under this defense, discrimination is permissible if it is based on a good-faith belief that a discriminatory price is necessary to meet the price of a competitive supplier to the favored customer or to maintain a traditional price disparity.<sup>44</sup> Many managers are familiar with the application of this defense on the micro level, that is, when a buyer tells the seller that the seller’s competitor offered a lower price. However, meeting competition may also be used on the macro level to justify things like volume discounts that are so institutionalized in the industry that adjusting them to reflect true cost savings would result in the loss of business.

Of course, it is at the micro level where this defense is most often used. Unfortunately, this means relying on the purchaser for competitive pricing information when the buyer has every incentive to lie.<sup>45</sup> Some companies provide their salespeople with detailed meeting competition forms that require competitive invoices and other documentary evidence. While this sort of evidence is helpful, it is not essential if the seller has a reasonable basis at the time of the decision to believe that the competitive price described by the buyer is

legitimate, even if it turns out to be wrong later. Nevertheless, a written or electronic record of why the otherwise discriminatory price was provided is useful.

Because meeting competition is a defense, there is no obligation to provide the special price to anyone other than the customer that asked for it. Of course, smart buyers will attempt to secure “most-favored-nations” clauses in their contracts or purchase orders to automatically get the benefit of a lower price elsewhere, regardless of whether they would otherwise be entitled to it. Such clauses may cause tension between a supplier’s Robinson–Patman responsibilities and those under the law of contract.

3. *Changing Conditions.* Special prices may be provided to sell perishable, seasonal, obsolete, or distressed merchandise, even though the full price had been charged up to the point of offering the special prices.

### Promotional Discrimination

The Robinson–Patman Act also bans promotional discrimination in an effort to deny an alternative means of achieving discriminatory pricing. The distinction between price and promotional discrimination is an important one, because different legal standards apply and, while the requirements in certain respects are tougher for promotional discrimination, there is ultimately more flexibility.

Price discrimination covers the sale from the supplier to the reseller or to the direct buying end-user, while promotional discrimination usually relates only to the reseller’s sale of the supplier’s products.<sup>46</sup> Historically, promotional discrimination was largely the purview of consumer goods marketers, as industrial goods sellers concentrated on such things as volume discounts subject to price discrimination standards. However, the need for creative account-specific marketing and the desire to make supplier incentives work harder have caused many industrial sellers to face the same issues. Both consumer and industrial suppliers are now focusing on how their resellers sell their products (promotional discrimination), rather than only on how they buy them (price discrimination).

As was the case with price discrimination, each of several elements must be present to violate the law:

1. *The Provision of Allowances, Services, or Facilities.* Here, the supplier grants to the reseller advertising or promotional allowances (like \$5 off per case to promote a product) or provides services or facilities (such as demonstrators or free display racks), usually in return for some form of promotional performance.<sup>47</sup>

2. *In Connection with the Resale of the Supplier’s Goods.* As is the case with price discrimination, the law regarding promotional discrimination does not apply to service providers. In addition, promotional discrimination generally applies only to resellers. Typically, this does not cover purchasers that use or consume the supplier’s product in making their own. Also, it usually does not cover the incorporation of a product, such as sugar used in baked goods or sound systems installed at the automotive factory. However, these purchasers are resellers for promotional discrimination purposes if they receive allowances or other benefits from the supplier for promoting the fact that the finished goods were made using the supplier’s product or contain it, such as an

ice cream producer that advertises the use of a particular brand of chocolate chips or a manufacturer that promotes the use of an axle brand in its heavy-duty trucks.

3. *Not Available to All Competing Customers on Proportionally Equal Terms.* Once again, not all of the supplier's customers need to be treated alike, only those that compete. In addition, the services or facilities offered or the performance required to earn the allowances must be "functionally available," that is, usable or attainable in a practical sense by all competing resellers, something that may require alternatives. In other words, if a reseller could take advantage of a promotional program, but chooses not to do so, the supplier is off the legal hook.<sup>48</sup> For example, if a warehouse club chain could advertise in newspapers, but it decides not to do so, the supplier is under no legal obligation to offer an alternative to a newspaper advertising allowance. On the other hand, if the supplier pays for advertising on grocery carts, but some of its retail customers can't have them due to the size of their stores, the supplier must make available an alternative means of performance, such as a poster or window sign in lieu of cart advertising.

The flexibility available under promotional discrimination standards is based on the fact that competing customers do not have to receive the same level of benefits, something contrary to the implicit mandate to do so under price discrimination rules. Instead, the promotional discrimination requirement is one of "proportional equality," and there are three ways to proportionalize what is provided: (i) on unit or dollar purchases (buy a case, get a dollar—something that lawfully favors larger resellers that buy more); (ii) on the cost to the reseller of the promotional activity (a full-page ad in a national trade magazine costs more than that in a regional newsletter); or (iii) on the value of the promotional activity to the supplier (salespeople dedicated exclusively to the supplier's brand have more value than those who are not).<sup>49</sup>

### **Competitive Injury, Defenses, and Indirect Purchasers**

There also are other, somewhat less attractive differences between price and promotional discrimination. First, no competitive injury is necessary for illegal promotional discrimination, making it more like a per se rule.<sup>50</sup> Second, meeting competition is the only defense, as cost justification and changing conditions are irrelevant. Third, if the supplier provides promotional allowances to direct-buying resellers, it must also furnish them to competitive resellers that buy the promoted product through intermediaries, something that may be accomplished with ultimate reseller rebates or mandatory pass-throughs.

## **USING NON-PRICE VARIABLES TO SUPPORT PRICING GOALS**

### **Vertical Non-Price Restrictions**

Under the standards for price and promotional discrimination, the Robinson-Patman Act requires that only competing reseller and direct-buying end-user customers be treated similarly. For this reason, or to be consistent with other price-related or marketing objectives, the supplier may wish to control the

degree to which its resellers compete with each other, something known as “intra-brand competition.” In 1977, the Supreme Court’s *Sylvania* decision provided suppliers with considerable flexibility in this regard, by holding that vertical non-price restrictions are subject to the rule of reason and that intra-brand competition could be reduced to promote “interbrand competition,” or the rivalry between competing brands.<sup>51</sup>

As a result, suppliers may impose vertical restraints on resellers to help manage distribution channels and to provide considerable leeway in pricing design using the carrot approach (financial incentives), the stick approach (contractual requirements), or some combination of the two. Certain restrictions may also be useful in dealing with sales agents, the provision of services, and direct-buying end-users, as illustrated in the discussion about “Product Restrictions” later in this chapter. Historically, industrial sellers have favored the use of vertical restrictions and the more selective distribution that goes with them, while many consumer goods suppliers (except those which sell durables) have been more interested in widespread distribution without the same sort of restrictions. However, the challenges of internet sales and other factors have focused more attention on limiting how products may be resold.

Broadly speaking, there are three types of vertical non-price restraints, each subject to the rule of reason:

1. *Customer Restrictions.* Rather than selling to any customer, the reseller is restricted only to particular customers or is prohibited from selling to certain customers. For example, in the industrial area, the reseller could be required to sell only to plumbing contractors or to stay away from accounts that are reserved to the supplier or another reseller. On the consumer side, the reseller could be limited to customers who order over the internet or prohibited from selling to such customers at all.

2. *Territorial Restrictions.* Although generally designed to prevent or discourage selling outside of a geographic area, these can also be thought of as market restrictions. An “exclusive distributorship” is actually a restraint on the supplier, as it agrees that a particular reseller will be the exclusive outlet in the latter’s territory or market (however defined) for some or all of the supplier’s products. When the reseller is required to sell inside only a particular territory or market, it is subject to “absolute confinement.” By combining an exclusive distributorship with absolute confinement, the result is known as an “airtight territory.” In other words, if a supplier promises a dealer that the latter will be the only outlet in Oregon for a particular product, it has granted an exclusive distributorship. If the dealer is limited to selling in that state, there is absolute confinement and, when it is combined with an exclusive distributorship, the reseller has an airtight territory.

Due to some flip-flopping on the part of the Supreme Court, vertical non-price restrictions were per se illegal from 1968 until the *Sylvania* decision in 1977. In response, a number of so-called “lesser restraints” were established that may not be as helpful in pricing as other restrictions, but still can be useful. The first of these is an “area of primary responsibility” that permits sales outside a reseller’s territory, but expects the reseller to focus its efforts on its designated geographic area.<sup>52</sup> The second is a “profit passover” that allows the reseller to sell anywhere, but, to neutralize the “free-rider effect,” the reseller must split revenue or profit for sales outside its territory with the reseller in the area encroached upon. The third is a “location clause” that restricts the



reseller to approved sites only. While this last approach is ineffective if sales are made over the internet or by phone, it can be useful where a physical presence in the territory is necessary, especially in an environment where resellers are consolidating.

3. *Product Restrictions.* Suppliers have no legal obligation to sell their reseller or end-user customers any of their products, except in two instances—when the supplier has a contract to do so or in the relatively rare situation when the supplier is a monopolist with excess capacity.<sup>53</sup> In other words, the supplier may generally determine what products, if any, it sells to its reseller or direct-buying end-user customers, something that can be referred to as designated products. In this way, it may limit intrabrand competition or other conflicts by restricting what can be purchased by whom.

In addition, if the reseller or the end-user is not permitted to purchase particular products or services or types of products or services from another supplier, this practice is known as *exclusive dealing*. Alternatively, it may be discouraged from doing so through financial or other incentives, often called “loyalty programs.” Judged under the rule of reason, the test is whether competing suppliers are unreasonably foreclosed from the market. As long as such suppliers have reasonable access to the market through other resellers or other means, exclusive dealing is permissible.<sup>54</sup>

In some respects, *tying* is the other side of the coin from exclusive dealing, with the same effect.<sup>55</sup> In its most extreme form, tying requires that in order to purchase a desirable product or service, the customer must also buy another product or service that is less desirable. Although tying is often described as per se illegal, the analysis necessary to prove a violation is more like that required by the rule of reason.<sup>56</sup> Bundling is not illegal tying, as long as the products or services are available separately, even at a somewhat higher, but reasonable, cost.

*Full-line forcing*, judged under the rule of reason, is a variation on tying that requires a reseller to carry the supplier’s entire line or a specified assortment to avoid the customer’s cherry-picking of the more desirable products. Note that tying and full-line forcing can effectively crowd competitive products off the shelf.

### **Non-Price Incentives**

To motivate desired behavior, a supplier may provide a favored reseller or end-user with certain non-price benefits, such as first access to new products or enhanced technical support. Due to their non-price nature, this type of discriminatory reward is not covered by the Robinson–Patman Act, although the other laws still may apply.<sup>57</sup> At the same time, anything that the supplier does to assume or subsidize an expense that normally would be incurred by the customer triggers application of the Robinson–Patman Act.

## **OTHER PRICING ISSUES**

### **Predatory Pricing**

The practice of setting a price so low that a seller harms its own profitability in an attempt to do greater harm to a competitor is predatory pricing. The

purpose of such behavior is either to discipline a competitor for competing too intensely or to drive it from the market and thus reduce or eliminate its competition.

Long-term aggressive pricing that is below marginal cost (or its measurable surrogate, average variable cost) can be attacked as monopolization or attempted monopolization under Section 2 of the Sherman Act and by the FTC under Section 5 of the FTC Act.<sup>58</sup> However, in 1993, the Supreme Court ruled that a successful prosecution requires proof that the price-cutting seller could likely recoup its losses with higher prices later on.<sup>59</sup> This heavy burden of proof severely limits claims of predation and favors the presumption that price-cutting is procompetitive.

### Price Signaling

The practice of a supplier communicating its future pricing intentions to its competitors is known as *price signaling*. It is usually done to facilitate price parallelism through such means as supplying advance notice of price changes to customers or the media. In *DuPont*, the court of appeals overturned an FTC decision that such behavior violates the antitrust laws, ruling that consciously parallel pricing is not unlawful unless it is collusive, predatory, coercive, or exclusionary.<sup>60</sup> While signaling raises questions about the possibility of collusion, it can have legitimate business purposes as well. According to the court of appeals, signaling serves the lawful purpose of aiding buyers in their financial and purchasing planning.<sup>61</sup>

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### Summary

The development and implementation of pricing strategies and tactics that do not violate the law is an important aspect of pricing. In addition to the risk of legal actions initiated by the government, a company can be sued by private parties, usually its competitors or its customers. If the Justice Department can prove that the company's pricing violated the criminal provisions of the antitrust laws, the company is subject to fines and its managers may face both fines and imprisonment. In successful civil cases brought by the Justice Department or the FTC, the company may be enjoined from certain conduct and subject to civil penalties, while in civil actions filed by private parties, defendants that lose may also be enjoined and have to pay treble damages and the attorneys' fees and court costs of the plaintiff. Even if antitrust claims are successfully defended, their defense is usually disruptive to the business and expensive in terms of monetary and management costs, as well as the effects on reputation.

At the same time, it is obvious that the law is rarely black-and-white, particularly in the area of pricing. Over the last several decades, U.S. courts have placed more emphasis on showing demonstrable economic effect, rather than relying on assumptions to find antitrust violations. Indeed, once the business objectives are clear, contemporary antitrust law provides considerable flexibility to develop alternative strategies and tactics, which are usually compatible with the degree of legal and trade relations risk a business wishes to assume. While there often are no easy answers, in most cases the ends are achievable with some modification of the means.

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## Notes

1. *U.S. v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 224 n.59 (1940).
2. Clarence C. Walton, *Ethos and the Executive* (Upper Saddle River, NJ: Prentice Hall, 1969), p. 209.
3. William J. Kehoe, "Ethics, Price Fixing and the Management of Price Strategy," in *Marketing Ethics: Guidelines for Managers*, ed. Gene R. Laczniak and Patrick E. Murphy (Lexington, MA: D.C. Heath, 1985), p. 72.
4. Kehoe, "Ethics, Price Fixing and the Management of Price Strategy," p. 71.
5. Manuel G. Velasquez, *Business Ethics*, 3rd edn. (Upper Saddle River, NJ: Prentice Hall, 1992), pp. 282–283.
6. Tom L. Beauchamp and Norman E. Bowie, *Ethical Theory and Business*, 4th edn. (Upper Saddle River, NJ: Prentice Hall, 1993), pp. 697–698.
7. Specialized or industry-specific statutes are outside the scope of this discussion. However, federal and state laws of general applicability tend to be consistent. For antitrust issues (particularly in pricing), it is wise to have the assistance of knowledgeable legal counsel. This section is not a substitute for such help.
8. See 1999 O.J. (L 336) 21; 1999 O.J. (C 291) ¶ 119 (the safe harbor is available to the supplier if its market share is 30 percent or less, and there is some additional flexibility when new products are involved). The U.S. approach does not establish a numerical market-share threshold, but instead looks at economic effects as a whole under the "rule of reason" discussed in the next section. For an even more significant difference between U.S. and E.U. antitrust law, see text accompanying notes 21–26 *infra*.
9. Criminal violation of the Sherman Act, the country's principal antitrust statute, is a felony punishable by a \$100 million fine if the perpetrator is a corporation or other entity and a \$1 million fine or ten years in prison or both if the violator is an individual. 15 U.S.C. § 1 (the penalties were substantially raised in 2004). Application of the Comprehensive Crime Control Act and the Criminal Fine Improvements Acts, 18 U.S.C. §§ 3571–3572, permits an even greater financial penalty by allowing the fine to be increased to twice the gain from the illegal conduct or twice the loss to the victims, while the Federal Sentencing Guidelines can also impact the penalties imposed. See United States Sentencing Commission, 2016 Sentencing Guidelines, Part R, § 2R1.1. Accessed at [www.ussc.gov/guidelines/2016-guidelines-manual](http://www.ussc.gov/guidelines/2016-guidelines-manual).
10. The FTC has no authority under the Sherman Act and relies on other antitrust statutes, including Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45.
11. Since the 1980s, state attorneys general also have been active in civil antitrust enforcement at the federal level, suing on behalf of the citizens of their states and often coordinating their efforts through the National Association of Attorneys General (NAAG).
12. On July 30, 2002, the Sarbanes–Oxley Act of 2002, Pub.L. 107–204, 116 Stat. 745, enacted 15 U.S.C. § 7201, et. seq., 15 U.S.C. §§ 78d-3, 78o-6, and 78kk, and 18 U.S.C. §§ 1348 to 1350, 1514A, 1519, and 1520, amended 11 U.S.C. § 523, 15 U.S.C. §§ 77h-1, 77s, 77t, 78c, 78j-1, 78l, 78m, 78o, 78o-4, 78o-5, 78p, 78q, 78q-1, 78u, 78u-1, 78u-2, 78u-3, 78ff, 80a-41, 80b-3, and 80b-9, 18 U.S.C. §§ 1341, 1343, 1512, and 1513, 28 U.S.C. § 1658, and 29 U.S.C. §§ 1021, 1131, and 1132, enacted provisions set out as notes under 15 U.S.C. §§ 78a, 78o-6, 78p and 7201, 18 U.S.C. §§ 1341 and 1501, and 28 U.S.C. § 1658, and amended provisions set out as notes under 28 U.S.C. § 994.

13. An “issuer” is defined by the statute: “The term ‘issuer’ means an issuer (as defined in Section 3 of the Securities Exchange Act of 1934 (15 U.S.C. § 78c)), the securities of which are registered under Section 12 of that Act (15 U.S.C. § 78l), or that is required to file reports under Section 15(d) (15 U.S.C. § 780(d)), or that files or has filed a registration statement that has not yet become effective under the Securities Act of 1933 (15 U.S.C. § 77a et. seq.), and that it has not withdrawn.” 15 U.S.C. § 7201(7).
14. See, e.g., ABA Antitrust Section, *Antitrust Compliance: Perspectives and Resources for Corporate Counselors*, 37–38 (2005).
15. 15 U.S.C. § 7241; 18 U.S.C. § 1350.
16. 18 U.S.C. §§ 1513–14.
17. Similarly, vertical price fixing does not apply to the sale of services through intermediaries when the services are performed by the supplier for the end-user (such as cellular telephone services), because ownership of the services never passes to the intermediaries. Indeed, the role of the intermediaries is that of selling agent on behalf of the supplier.
18. 15 U.S.C. § 1.
19. This also is why sales of goods through agents are not subject to the price-fixing prohibitions of Section 1 of the Sherman Act nor are consignment sales where the supplier retains title to the goods in the reseller’s possession until they are sold to the end-user. These are unilateral activities on the part of the supplier, because ownership flows directly to the end-user from the supplier.
20. For a discussion of “price signaling,” a practice that facilitates conscious parallelism, see “Other Pricing Issues,” below.
21. See *Interstate Circuit, Inc. v. United States*, 306 U.S. 208, 222 (1939) (restrictions); *American Tobacco Co. v. United States*, 328 U.S. 781, 805 (1946) (price increases). Of course, if the challenged conduct is consistent with rational individual behavior or there is little reason for the defendants to engage in a conspiracy, it is more difficult to find one. See *In re Text Messaging Antitrust Litig.*, 630 F.3d 622, 627–29 (7th Cir. 2010) (addressing so-called “tacit collusion,” which is an outcome of an oligopolistic market structure and is lawful).
22. See, e.g., *In re Baby Food Antitrust Litig.*, 166 F.3d 112 (3d Cir. 1999). Moreover, the validity of the purported reasons for engaging in the conduct under examination is a consideration, but even a pretext for doing so does not alone establish a conspiracy.
23. For a case illustrating direct price fixing, see *United States v. Andreas*, 216 F.3d 645 (7th Cir. 2000) (Archer Daniels Midland executives). For a situation involving indirect price fixing, see *United States v. Container Corp.*, 393 U.S. 333 (1969).
24. 468 U.S. 85 (1984). This case validated the court’s decision in *Chicago Board of Trade v. United States*, 246 U.S. 231 (1918), which upheld an exchange rule that after-hours trading had to be at prices at which the market most recently closed. Such a rule was supportive of the free-for-all competition that occurred during the trading day and, therefore, was reasonable even though it set prices among members.
25. *State Oil Co. v. Khan*, 522 U.S. 3 (1997); *Leegin Creative Leather Prods., Inc. v. PSKS*, 551 U.S. 877 (2007).
26. S.148, 111th Con. (2009); H.R. 3190, 111th Con. (2009); Md. Commercial Law Code Ann. § 11-204(b) (2009). Although Maryland is the only state that has addressed *Leegin* head-on, many states, like New York and California, generally construe their antitrust laws consistently with those at the federal level, but will diverge when state policy requires. See, e.g., *Darush MD APC v. Revision LP*, No. 12-cv-10296, 2013 WL 1749539 (C.D. Cal. Apr. 10, 2013). In what could have been an important

showdown under *Leegin*, the Attorneys General of New York, Michigan and Illinois filed suit against Herman Miller in 2008 under federal and state law, claiming that the company had entered into illegal minimum price-fixing agreements. However, only four days after filing, the case was settled by consent decree, so there was no opportunity for the court to consider a *Leegin* defense. *New York v. Herman Miller, Inc.*, No. 08 Civ. 2977 (S.D.N.Y. March 25, 2008) (Stipulated Final Judgment and Consent Decree). Like all other consent decrees and consent orders, this decree also has no precedential value.

27. Ironically, amid the considerable handwringing in the U.S. over *Leegin*, Canada, which by statute banned all forms of resale price setting and treated violations as criminal, amended its laws in 2009 to drop this approach in favor of something more akin to the rule of reason. Competition Act, R.S.C., ch. C 34 (1985), § 76.
28. See *United States v. Colgate & Co.*, 250 U.S. 300 (1919); *Leegin Creative Leather Prods., Inc. v. PSKS*, 551 U.S. at 880. *Colgate* is the first Supreme Court decision that permitted this conduct, and unilateral vertical price fixing is said to apply the “*Colgate* doctrine.” Strictly speaking, the supplier is not “setting” prices. It is only “suggesting” or “recommending” them, but the result is the same if the supplier’s unilateral price policy is effective. For a detailed discussion of the application of the *Colgate* doctrine, see Brian R. Henry and Eugene F. Zelek, Jr., *Establishing and Maintaining an Effective Minimum Resale Price Policy: A Colgate How-To*, Antitrust 8 (Summer 2003) (written pre-*Leegin*, but still useful). Note that vertical price fixing of any sort (maximum, minimum, or exact) by agreement is illegal in the E.U., and there is also nothing analogous to the *Colgate* doctrine. However, in 2010, the E.U. seemed to soften its stance a bit with respect to new products, but this approach is seldom, if ever used. See 2010 O.J. (C 130) ¶ 225.
29. See *Business Electronics Corp. v. Sharp Electronics Corp.*, 485 U.S. 717, 726–27 (1988).
30. The flexibility under antitrust law notwithstanding, pulling all of the supplier’s business may trigger reseller protective statutes at the federal or state level that are usually industry-specific (covering automobile dealers or beer wholesalers, for example), although some states have more general protections. (See, e.g., Wisconsin Fair Dealership Law, Wisc. Stat. § 135.) Also, unless the deletion of one or more products is allowed by the applicable agreement, doing so under an otherwise lawful price policy could still constitute breach of contract.
31. Although litigation in this area is rare, an example of what not to do is to negotiate a unilateral policy so that it becomes an agreement, something alleged in *In re: Disposable Contact Lens Antitrust Litig.*, 109 F. Supp. 3d 1369 (U.S. Jud. Pan. Mult. Lit. 2015). Worse, that litigation led to Utah banning any form of resale price policy or agreement for contact lenses, Utah Code § 58-16a-901, *et seq.*, something then attacked on constitutional grounds by contact lens manufacturers, so far unsuccessfully. *Johnson & Johnson Vision Care, Inc. v. Reyes*, No. 15-4071, 2016 WL 7336568, at \*1 (10th Cir. Dec. 19, 2016).
32. This approach is common in the area of consumable medical products. Interestingly, the supplier-negotiated sell price to a large hospital chain or buying group may be below the reseller’s buy price from the supplier. However, after proof of such a sale is provided to the supplier, it rebates the difference, along with additional funds to provide the reseller with a margin. Such conduct was subject to the rule of reason pre-*Leegin* when

- minimum price agreements were per se illegal, so it is likely that such status will be retained.
33. 15 U.S.C. § 13. This statute is discussed in the next section. For example, until 1987, the FTC viewed advertised price restrictions in promotional agreements as per se illegal, but then changed its mind. See 6 Trade Reg. Rep. (CCH) ¶ 39,057 at 41,728 (FTC May 21, 1987). The same treatment is relevant under the Sherman Act. See, e.g., *Lake Hill Motors, Inc. v. Jim Bennett Yacht Sales, Inc.*, 246 F.3d 752, 757 (5th Cir. 2001). Of course, where there is no agreement, the *Colgate* doctrine applies.
  34. Of course, practices that go too far are still subject to attack, as was the case of five major suppliers of consumer audio recordings that are faced with an FTC enforcement proceeding alleging the effective elimination of price competition, agreed to drop their MAP programs by consent order. Because such proceedings were settled in this fashion, there was no real factual determination and they are not binding as legal precedent. At the same time, they provide some guidance, especially in the rather rare situation where virtually identical MAP programs are widely used in an industry, they suppress almost all forms of price communication, they have a demonstrated adverse effect on industry pricing, and they lack any procompetitive justification. See *In re Sony Music Entertain. Inc.*, No. 971-0070, 2000 WL 689147 (FTC May 10, 2000); *In re Universal Music & Video Dist. Corp.*, No. 971-0070, 2000 WL 689345 (FTC May 10, 2000); *In re BMG Music*, No. 971-0070, 2000 WL 689347 (FTC May 10, 2000); *In re Time Warner Inc.*, No. 971-0070, 2000 WL 689349 (FTC May 10, 2000); *In re Capitol Records, Inc.*, No. 971-0070, 2000 WL 689350 (FTC May 10, 2000).
  35. 15 U.S.C. § 13. Price discrimination is covered by Section 2(a) of the act, while promotional discrimination is addressed under Sections 2(d) and 2(e). *Id.* §§ 13(a), (d)-(e). States tend to have laws that are comparable to that at the federal level. Canada also has a statutory prohibition on economic discrimination, which was decriminalized in 2009 and is now analyzed under a standard similar to the rule of reason. Competition Act, R.S.C., ch. C 34 (1985). §§ 76, 77, 79. In 2007, the Antitrust Modernization Commission chartered by Congress called for repeal of the Robinson-Patman Act, but no action has been taken. See Antitrust Modernization Commission, Report and Recommendations, iii (April 2007).
  36. To be clear, direct sales by a supplier to the government or a charitable organization (like a not-for-profit school) for its own use are outside the Robinson-Patman Act. However, if the supplier sells to an intermediary that resells to such an entity, the intermediary's sale is exempt, but that of the supplier to the intermediary is not.
  37. For example, certain pharmaceutical companies paid more than \$700 million to settle a consolidated lawsuit brought by thousands of drug resellers who alleged that health maintenance and managed care organizations received preferential pricing in violation of the Robinson-Patman Act and as part of a price-fixing conspiracy. *In re Brand Name Prescription Drugs Litig.*, No. 94 C 897, 1999 WL 639173, at \*2 (N.D. Ill. Aug. 17, 1999). Other companies fought the suit and succeeded in getting essential portions of it thrown out. *In re Brand Name Prescription Drugs Litig.*, 1999-1 TradeCas. (CCH) ¶ 72,446 (N.D. Ill.), *aff'd in part*, 186 F.3d 781 (7th Cir. 1999).
  38. For structuring purposes, there is no violation if one or more of the elements are missing. Often overlooked is that resellers selling to other businesses in interstate commerce are required to follow the Robinson-Patman Act with respect

to their selling activities. In addition, buying activities by resellers or end-users are covered by Section 2(f) of the Act, 15 U.S.C. § 13(f). See note 47 *infra*.

39. See *Volvo Trucks North America, Inc. v. Reeder-Simco GMC, Inc.*, 546 U.S. 164 (2006). In this situation, many companies insist on treating both resellers the same, a somewhat more conservative approach that avoids the trade relations risk of the disfavored reseller finding out what occurred, as well as the legal risk that a sale will be made at the special price for the project and another of the identical goods and quantity at a higher price will be made to a second competitive reseller at about the same time. Alternatively, if the supplier wishes to provide favorable bid pricing on a selective basis, it could implement a clearly articulated policy that each piece of bid business is discrete from every other and from everyday sales for inventory. In addition, a tiered-price program that is available to competing resellers may be a useful vehicle to permit discrimination in bid pricing by favoring those that chose to meet certain criteria in the program over those that do not.
40. This distinction between a good and a service is not always obvious. For example, printing, advertising, and real estate are all services, even though something tangible is involved. In addition, off-the-shelf software is a good (much like a book or a music CD), while customized software is most likely a service. The courts have split as to whether electricity is a good or a service, a particularly important distinction in the era of deregulation. While service sellers are free from the Robinson-Patman Act, economic discrimination on their part may give rise to other antitrust claims or violate industry-specific statutes. Moreover, state law can cover discrimination in service pricing, such as that in California. See Cal. Bus. & Prof. Code § 17045.
41. *FTC v. Borden Co.*, 383 U.S. 637 (1966) (evaporated milk). Although this result is counterintuitive, if brand preferences translate into different costs to produce or sell, these costs may be taken into account in pricing the otherwise identical products by relying on the defense known as “cost justification,” which is discussed in the section titled “Defenses to Price Discrimination.”
42. Consistent with its modern focus on actual economic effect, the Supreme Court substantially raised the bar in this area by adopting this standard in *Brooke Group v. Brown & Williamson Corp.*, 509 U.S. 209 (1993). See the discussion of “Predatory Pricing” below.
43. Note that a defense shifts the burden of proof from the plaintiff to the defendant, so record-keeping on the part of the defendant takes on added importance.
44. Sometimes a supplier provides a trade discount to a purchaser that is based on the latter’s role in the supplier’s distribution system and that reflects in a generalized way the services performed by the purchaser for the supplier. For example, a wholesaler may receive a lower price than a direct-buying retailer for such functions as warehousing and taking credit risk. There is no requirement or blanket Robinson-Patman exemption to differentiate between distribution levels (except to the extent that wholesalers and direct-buying retailers likely don’t compete), so if it is done, the differences may be cost-justified or legitimized as meeting competition. If either of these defenses is not available, a functional discount may still be lawful if it reflects reasonable compensation for the services provided. See *Texaco Inc. v. Hasbrouck*, 496 U.S. 543 (1990). Danger areas include (i) the use of intermediaries controlled by the ultimate customer to disguise discounts and

- (ii) situations in which the intermediary makes some sales as a wholesaler and others as a retailer, but the supplier provides it with the wholesaler discount on all purchases.
45. Section 2(f) of the Robinson–Patman Act, 15 U.S.C. § 13(f), prohibits buyers from knowingly inducing discriminatory prices, but this provision is largely toothless, as the FTC is not as zealous in its enforcement as it once was and suppliers almost never sue their customers.
  46. While it is possible that an industrial manufacturer that consumes the supplier’s products could be covered under the promotional discrimination provisions of the Robinson–Patman Act in certain situations (see the discussion below), it is far more common for these provisions to apply only to resellers. For consistency in this section, the party that purchases from a supplier will be referred to as the “reseller,” unless otherwise noted.
  47. Things like package sizes are not included in the broad definition of services and facilities. *Woodman’s Food Mkt., Inc. v. Clorox Co.*, 833 F.3d 743, 750 (7th Cir. 2016), *cert. denied sub nom. Woodman’s Food Mkt., Inc. v. The Clorox Co.* (U.S. Feb. 27, 2017) (denial of “club packs” to retailer).
  48. Of course, the supplier may still face trade relations issues.
  49. In its *Guides for Advertising Allowances and Other Merchandising Payments and Services*, 16 C.F.R. § 240, the FTC endorses the first two approaches and ignores the third, although there is case support for it. Fortunately, the guides do not carry the force of law.
  50. As is the case with price discrimination, it is illegal for buyers to knowingly induce discriminatory promotional allowances, but, due to a drafting quirk, only the FTC can chase lying buyers here. See 15 U.S.C. § 13(f).
  51. *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 51–52 (1977).
  52. The best area-of-primary-responsibility contract or policy language requires that a quantitative goal be attained before outside sales are permitted. The worst provision uses a meaningless “best efforts” clause that requires the reseller to use its best efforts to sell the supplier’s products in the reseller’s area. Note that if the supplier does not have written contracts with its resellers, it may use written policies to impose vertical restrictions.
  53. The same rule applies to non-customers who want to become customers and request certain products.
  54. When a monopolist uses a loyalty program to entrench or extend its monopoly, it can run afoul of the prohibitions on monopolization and attempted monopolization under Section 2 of the Sherman Act. 15 U.S.C. § 2. See *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 282–83 (3d Cir. 2012), *cert. denied*, 133 S. Ct. 2025 (2013); *LePage’s Inc. v. 3M (Minnesota Mining and Mfg. Co.)*, 324 F.3d 141 (3d Cir. 2003), *cert. denied*, 124 S. Ct. 2932 (2004); and note 55 *infra*.
  55. Both exclusive dealing and tying may be challenged under Section 1 of the Sherman Act, 15 U.S.C. § 1 (goods or services); Section 3 of the Clayton Act, *id.* § 14 (goods only); and Section 5 of the Federal Trade Commission Act, *id.* § 45 (goods or services).
  56. The elements of unlawful tying are (i) two separate products or services; (ii) the sale of one (the “tying product”) is conditioned on the purchase of the other (the “tied product”); (iii) there is sufficient economic power in the market for the tying product to restrain trade in the market for the tied product; (iv) a not insubstantial amount of commerce in the market for the tied product is affected; and (v) there is no defense or justification available, such as proper functioning or trade secrets. See, e.g., *E & L Consulting*,



- Ltd. v. Doman Indus. Ltd.*, 472 F.3d 23, 31–32 (2d Cir. 2006) (also identifying “anticompetitive effects in the tied market” as an element, as some courts require).
57. Under certain distributor, dealer, or franchisee protective laws at the state level, suppliers may be required to treat all intermediaries more or less the same in all business dealings, or, as in Wisconsin, not change their “competitive circumstances” without cause. See Wisconsin Fair Dealership Law, Wisc. Stat. § 135.
  58. 15 U.S.C. §§ 2, 45. Monopolization requires (i) monopoly power in the relevant market and (ii) the willful acquisition or maintenance of that power, while attempted monopolization consists of (i) predatory or exclusionary conduct, (ii) specific or predatory intent to achieve monopoly power in the relevant market, and (iii) a dangerous probability that the defendant will be successful. See, e.g., *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004), citing *United States v. Grinnell Corp.*, 384 U.S. 563, 570–571 (1966) (monopolization); *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 456 (1993) (attempted monopolization). The presence of a conspiracy to engage in predatory pricing can violate Sections 1 and 2 of the Sherman Act. 15 U.S.C. §§ 1, 2.
  59. *Brooke Group v. Brown & Williamson Corp.*, 509 U.S. 209 (1993). The Supreme Court later extended this approach to predatory buying, i.e., overpaying for inputs to drive out competitors. *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 549 U.S. 312 (2007). A variation is the “price squeeze,” where an integrated manufacturer with a large market share in a key input sells it at a higher price to manufacturers of competing finished goods than the input manufacturer sells its own finished products. However, the Supreme Court has held that there is no antitrust issue as long as the input manufacturer is under no obligation to sell to others and its finished goods are not priced below cost. *Pac. Bell Tel. Co. v. linkLine Communications, Inc.*, 129 S.Ct. 1109 (2009).
  60. *E.I. Du Pont de Nemours & Co. v. FTC*, 729 F.2d 128, 139–40 (2d Cir. 1984).
  61. *Id.* at 134. Of course, not all types of price signaling fare as well. Eight airlines and their jointly owned data collection and dissemination company settled a price-fixing case brought by the Justice Department over a computerized system that was used to communicate fare changes and promotions in advance to the participants and permitted later modification or withdrawal of such announcements. *United States v. Airline Tariff Publishing Co.*, 1994-2 Trade Cas. (CCH) ¶ 70,686 (D.D.C. 1994) (all defendants, except *United Air Lines, Inc. and USAir, Inc.*); 836 F. Supp. 12 (D.C.C. 1993) (*United and USAir*). In the government’s view, the non-public nature of this data exchange and its method of operation were tantamount to the airlines having direct discussions in the same room.

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