When the price is right, profits follow.

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IT HAPPENS ALL THE TIME. YOU WALK INTO YOUR favorite clothing store to discover that the jacket you bought for $155 two weeks ago is now on sale for $79.99. Or, more painful, you decide to buy a new printer online and happen to see your "state-of-the-art" laptop prominently advertised on the vendor's homepage. Curious, you click through and discover that not only is your laptop no longer so state-of-the-art, but also that if you had waited just six weeks to buy your computer—you would have saved $1,200.

Nothing brings on buyer's remorse faster than the realization that you've left more money on the table than you had to. So after being frustrated enough times, some consumers get savvy and change their
buying behavior to accommodate the new realities of dynamic pricing—where prices vary frequently by channels, products, customers, and time. They make judgment calls. They deliberate about whether there is more value in having those wool slacks all winter or just during the last two months—which would leave more money in their pockets.

But have companies—whether B2C or B2B—become as savvy? The Internet is reshaping the pricing landscape on the sell side and, because of increased competition and customer segmentation, it is also mandating that firms adopt a dynamic pricing strategy. Yet a study we undertook of online pricing suggests that not enough companies have integrated dynamic pricing into their online pricing strategies, and those that have are not taking full advantage of its potential.

In effect, the Internet is causing companies that aren’t effectively using dynamic pricing to leave money on the table. And that’s not what was supposed to happen.

**Fear of Pricing**

Just think about it. If traditional margins are only about 10%, then using dynamic pricing to squeeze out an additional five percentage points means a dramatic 50% increase in profits. But too often companies are not choosing the correct dynamic pricing model for their specific business context, and, indeed, many seem afraid to allow their pricing to change freely with market conditions.

Consider, for example, how three major New York City hotels within the same mile were pricing a similar room in Spring 2001. Two hotels go out of stock for a period of time in their online channel and the other maintains constant pricing. By varying prices more frequently to take advantage of changing demand, these hotels could increase margins.

The benefits of dynamic pricing are twofold. First, it offers companies new opportunities to maximize the return per customer. With lower menu costs—the cost of displaying prices to customers—they can have multiple prices for different channels and product configurations and change them more frequently. When they have information about the competition and about customers’ needs and willingness to pay, companies can customize offerings and prices. This enables them to deploy dynamic pricing through the most appropriate of the many new channels. With dynamic pricing, companies can give their customers exactly what they want, at exactly the cost they are willing to bear. Nothing is left on the table.

The second, less conspicuous, benefit is that dynamic pricing can also bring better returns on deployed assets. For businesses with high fixed-cost technology infrastructures, periods of low demand, and thus low utilization, are expensive. Conversely, when there are inflexibilities in the supply chain for critical components, periods of high demand can lead to shortages and delay, which can damage customer relationships. But with dynamic pricing, companies can encourage demand in slow periods and discourage it in busy periods.

Consider how Dell prices its high-end personal computers. Unlike many other vendors, it changes its prices frequently, sometimes up and sometimes down. Because of the visibility it has into its supply chain and the information it gleans from those visiting its Web site, Dell can predict its near-term sales and adjust prices to maximize its revenues, moderate demand so as not to overburden its supply chain. It also can encourage buyers to purchase systems built to order based on committed supplies.

**Strategic Options**

Low menu costs and the online distribution of prices allow firms to use, and sometimes combine, three different dynamic pricing strategies:

**Time-based pricing** exploits the differences in customers’ willingness to pay at different times. For example, early buyers are willing to pay more for the latest fashions and computer and electronics innovations, while late buyers are willing to pay more for airline travel and hotel accommodations to keep their options open. And some products become more valuable over time, especially when more users increase the value to all users. For example, as AOL attracts more content and more users, it becomes more valuable to all users, and thus should be able to charge more.

The two most common forms of time-based pricing are peak load pricing and clearance pricing. Peak load pricing is most appropriate when supply inflexibilities allow suppliers to systematically increase prices with predictable increases in demand, such as with utility usage. Clearance pricing is most appropriate where demand is uncertain and products lose value in the eyes of the customer with time—they simply go out of fashion—or the change in season. Companies with short life cycle products such as computers must mark down their prices to clear out the
excess inventory they have built up in order to cover unpredictable spikes in demand.

Segmentation, which is fast gaining relevance in business domains other than airline ticket sales, exploits differences in the willingness of customers to pay through different channels, at different times, and with different levels of effort. Implementation of these strategies requires specialized product/service bundles that are priced differently based on product configuration, channel, customer type, and time.

B2B vendors can use segmentation to increase revenues through online exchanges or during the request for quotes (RFQ) or proposals (RFP) process. For example, because epoxy.com prices epoxy resin products based on the latest market conditions, rather than as a static menu, it has become a magnet to market-savvy purchasing managers from across manufacturing industries, from concrete to roofing materials. Of course vendors can realize more revenues by segmenting along other lines, including size, credit-worthiness, or location.

Dynamic pricing based on solid analytics can take much of the guesswork out of the RFQ process in B2B. Traditionally, sales representatives quote prices from a price list that is sent to them electronically. The price list offers suggested prices, but sales representatives have considerable latitude when quoting prices. Latitude that leaves a lot of money on the table.

In response to this problem, companies can use software that tests ranges of prices and measures responses. Based upon the analysis of varied prices or discount levels, software can suggest the most appropriate price for a given customer segment. The client continuously updates prices with the current customer response data. Prices can be tailored based upon firmographics/demographics, life-cycle stage, share of volume, primary competitor information, acceptance/rejection rates, etc. Sales representatives can then quote a much more accurate price in the first place. The result? Revenue-depleting latitude is drastically reduced. Dynamic merchandising exploits the Internet-enabled capacity to give customers different products, promotions, delivery options, and pricing as supply and inventory change. It allows Internet sellers to clear excess inventories without having to lower their price. For example, Amazon makes personalized suggestions to you every time you log on to its site. That way it can clear inventory and gain sales based on your interest. To be sure, one size, and one price, need not fit all. The Internet makes possible different pricing strategies for different customer segments and needs.

The Right Match

These various pricing strategies can be combined or used separately in different contexts. And the value and exploitability of these dynamic pricing strategies increase as differences among customers’ willingness to pay and uncertainty about demand increase.

For example, dynamic pricing strategies are least valuable when customer demand for products is predictable and customer willingness to pay is similar for all customers. When these conditions are present, using dynamic merchandising to shift customers to alternative products and services to manage supply inflexibilities or drive higher margins is the most feasible strategy.

When different customers have different values for a product or service but patterns of demand seem fixed, firms can deploy a full range of dynamic pricing strategies—dynamic merchandising, segmentation, and peak load pricing—to closely match pricing to a customer’s preferences and willingness to pay. When customers have different values for a product or service and demand is uncertain, all of these strategies plus clearance pricing become feasible.

Finally, when customer demand is uncertain but the value for the product is similar to all customers, dynamic merchandising and segmentation may be good strategies to adopt to maximize unit prices and stabilize the costs of supply.
Aligned with the Brand

Companies should use dynamic pricing selectively. After all, pricing decisions require managerial time and attention, scarce organizational resources. So here's a guiding principle: Pricing should be aligned with the firm's brand strategy.

Take, for example, Buy.com, a low price e-retailer. Buy.com sells a lot of PalmPilots, and changes their prices frequently. But it rarely changes the prices of its computers. Dell, on the other hand, sells a lot of computers, and so changes their prices frequently. It sells PalmPilots as a complement to a computer package, and thus offers them only at a higher, and rarely changed, price. Both Dell and Buy.com, then, closely monitor and frequently change only the prices of their core products.

Competitive pricing in one category can also support higher margins in other categories, if customers are unwilling to shop around for better prices. Consider the pricing strategies of Amazon.com and Barnes and Noble. For best-selling fiction, Amazon and Barnes and Noble follow each other closely in price. For other categories, such as specialized textbooks, there can be substantial differences in price.

New Capabilities

Companies that want to use price to competitive advantage must first develop—as Dell or Buy.com have—sense-and-respond capabilities. They will need to anticipate future demand patterns and customer willingness to pay for different products and services. Fortunately, current Internet technology provides a number of inexpensive solutions for tracking consumer behaviors and generating insights, and comparison tools and other bots make possible the automatic monitoring of competitor pricing in the retail sector.

Second, companies need to develop internal capabilities for dynamic pricing. This includes creating internal systems that allow visibility into critical parts inventory, and identifying opportunities for clearing pricing or supply inflexibilities that may be addressed through dynamic merchandising or segmentation. Generating visibility into the firm's operational systems will require integration between front-end and back-end systems, and often better data warehousing and integration capabilities across multiple firm processes.

Third, many companies not familiar with dynamic pricing and those that are also confronting changing market segmentations will have to build dynamic pricing capabilities. This will require recruiting new expertise, and an executive commitment to both the use of new pricing models and to reassessments of the value of specific customers to the firm. Implementing dynamic pricing will also require careful and thoughtful consideration of both the merchandise to be priced dynamically and the frequency of price changes.

Dynamic pricing is not without hazard. Because customers do not want to feel cheated, companies are better off having consistent prices across channels for the same product unless they substantially vary the offer. This is why airlines are better off clearing excess inventory through Priceline.com or Orbitz rather than directly through their own Web sites. They can continue to charge a premium to the last-minute traveler yet capture others through the more anonymous clearance channels that do not make excess inventory visible. And companies can avoid price discrimination—selling the same product at the same time to different customers at different prices—by changing product service attributes such as warranty or delivery.

A Better Balance

Dynamic pricing is not for everyone. Effective dynamic pricing is based on a responsive and adaptive pricing regime that defers to human judgment over automated pricing rules. Companies must be able to sense if customers will be responsive to dynamic pricing. If not, they should move to a stable pricing strategy. A smart pricing organization will experiment to determine what pricing model is best in the context of specific customers and adapt the model accordingly.

Dynamic pricing is becoming more and more imperative as companies begin to use online channels. It creates new opportunities for maximizing the returns on both customers and assets. It also creates a potential new source of competitive advantage that competitors can't easily replicate.

But it requires a high level of executive commitment to implementation and integration throughout an organization. It requires processes and competencies that are difficult to emulate, and there may be economies of scale in investments made to support dynamic pricing. Effective pricing also requires access to historical data and customer insights generated over time. This makes it difficult for new entrants to replicate dynamic pricing capabilities.

And dynamic pricing creates a balance between buyers and sellers more attuned to the digital age: customized and just-in-time. It's less like a speaker lecturing in front of a captive audience and more like two negotiators sitting at a table. Dynamic pricing makes available to both buyers and sellers a much broader and more valuesetting set of pricing options, so that no one leaves money on the table.

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