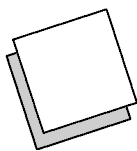


An executive summary for managers and executive readers can be found at the end of this article

Rapid growth of online sales



Pricing on the Internet

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Keywords Pricing, Internet

Abstract Conventional theories suggest that the Internet will drive down prices and lead to perfectly competitive prices. However, there is contradictory evidence indicating that online prices are not absolutely lower than offline stores. Regardless, the Internet gives rise to many opportunities for leveraging pricing strategies, in research and testing capabilities, customer segmentation, dynamic pricing, product differentiation, developing brand loyalty, including shipping and handling in the profitability analysis, offering multiple versions, and creating or participating in electronic marketplaces. The trading platform of eBay, Priceline's reverse auction, and price comparison Web sites are examples of novel Internet pricing models that are helping create a new pricing paradigm.

It has been predicted that online sales will increase from \$48 billion in 1998 to \$1.8 trillion by 2003. The worldwide Internet population was 445.9 million in 2002 and was projected to grow to 709.1 million by 2004. Also, Americans spent \$2.6 billion online during the first week of December, 2001, an increase of 91 percent from the estimated \$1.4 billion spent during an average week in November, 2001 (cyberatlas.internet.com, 2001, 2002a, b).

Accompanying this rapid growth of online sales and the Internet population has been an emphasis on Internet exchanges occurring at lower prices than in conventional outlets. In part, this assumed consequence of the increased use of the Internet for e-commerce is based on the expectation that distribution costs will be reduced and product and price information search by buyers and consumers will become easier and perhaps costless, particularly price information. Some of this belief has resulted from the way some of the early dot com online businesses started. For example, in 1998, Buy.com, a shopping bot, provided online buyers with product and pricing information for approximately 30,000 products. The belief that price is a primary purchasing determinant for online buyers was reinforced by the site's objective of always offering the lowest prices. For example, the essence of Buy.com's low-price strategy was going for someone who knows what they want and wants it for the lowest price (Armstrong, 1998; Gurley, 1999).

Buy.com's approach epitomizes the theory that the Internet will drive down prices to competitive levels and strengthen buyer power. Many other online businesses adopted this theory and continued to reduce prices to meet the assumed buyers' quest for the lowest price available. Given these

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assumptions and beliefs that the Internet would lead to perfect competition, many online companies set prices below consumers' value-based prices. And, of course, many online dot.com companies failed and no longer exist. Thus, we need to first examine the underlying theory that the Internet will lead to low prices and then confront that theory with what we know about how pricing really works.

Can the Internet lead to perfectly competitive prices?

It is noted that traditional economic theory assumes that buyers and sellers have perfect information about prices, their own tastes and preferences, and their budget or income available for purchasing goods and services. In addition, a perfectly competitive market is characterized by many independently acting buyers and sellers, homogenized products, and relatively easy entry and exit of firms.

Moving towards perfect information

When buyers are faced with imperfect information and an inability to assess quality, and therefore the ability to determine their degree of satisfaction prior to purchase, they may use price to infer quality and their expected degree of satisfaction. The quality of the attributes of some goods can be assessed prior to purchase and we call these products search products.

Examples of search products would include books, CDs, brand-name hard goods, airline tickets, toys, pet supplies, standard industrial supplies. Indeed, one survey indicated that online shoppers purchased more books and videotapes online than in stores (*Chicago Tribune*, 2000). Further, the Consumer Price Index (CPI) inflation rate for November 1999 for recreational products was 0.7 percent compared to the overall CPI inflation rate of 2.2 percent (Cooper and Madigan, 1999). Products in the recreational category include toys, music, books and pet supplies. In a study of prices for DVD titles, prices of pure Internet retailers were lower by an average of \$3.27 in comparison to retailers who sold both online and in retail stores. Moreover, the spread of prices for pure Internet sellers was considerably lower than the prices for the multichannel retailers (Tang and Xing, 2001). Buyers perceive less risk in buying products that they believe vary little in quality across alternative sellers including online sellers. And if there is little perceived quality variation across sellers, then buyers are more likely to minimize the price paid for such items.

However, searching for the lowest price from alternative sellers can be time consuming and effortful in traditional shopping. Most busy people do not have the time or the willingness to visit multiple outlets seeking the lowest price for a considered purchase. Thus, searching online for the lowest prices for these types of products can be convenient, quick, and comparatively costless. For example, one shopping bot, CompareNet, offered detailed information on more than 100,000 products. Other sites provide software agents to find products (Green, 1998; Compton, 2000; D'Innocenzio, 2001). Moreover, online shoppers can search in a wider geographical area than in the local community.

Shopbots provide "one-click" Internet access to price and product information from a relatively large number of competing sellers. It has been estimated that in comparison to telephone-based shopping and in-person retail store searching, they can reduce buyer search costs for product and price information at least 30-fold (Brynjolfsson and Smith, 2000). Shopbots collect and provide information on a variety of product characteristics,

Expected degree of satisfaction

Convenient, quick, and comparatively costless

Search engines or shopbots

retailer characteristics, and usually rank the retailers on a characteristic specified by the shopper, e.g. price or shipping costs and time.

These search engines, or shopbots, help to reduce asymmetric information between buyers and sellers. By reducing this asymmetry in information, buyers have additional influence in the negotiating process, transaction costs are reduced, and buyers have increased ability to make informed decisions. Further, shopbots and demand aggregation sites, or Web aggregators, help to reduce asymmetric information by providing searches that compile product and pricing information. Moreover, these aggregators connect individual buyers for the same product into buying groups and help them obtain volume discounts. General Electric Co. was able to reduce its purchase costs by 20 percent on more than \$1 billion of purchases of operating materials by pooling orders from divisions on a worldwide basis (Hof, 1999). Thus, the ability of the Internet and information technology to reduce the amount of asymmetric information helps increase buyer power. As a result, customers may come to think of price as something they direct and control, rather than something given to them (Wyner, 2001).

Online sales have been increasing rapidly

Many independent buyers and sellers

As mentioned above, online sales have been increasing rapidly, the worldwide Internet population has been growing dramatically, and there has been a veritable influx and exit of online sellers and intermediaries. One consequence of this growth and market instability is a wide variety of choices for buyers. Such a variety of choices online further enhances buyers' power including their ability to pool resources and purchase in volume. Moreover, the Internet serves to eliminate local and regional protections for sellers as now buyers can literally buy from anyone in any region of the world. Also, the direct supplier-buyer relationship in Internet transactions reduces or eliminates the various intermediaries in traditional distribution systems. Each of these trends serves to increase competitive pressure and keep pressure on prices to be relatively low as would be expected from traditional economic theory.

All products are viewed equally

Moving from differentiated to homogeneous markets

The increased popularity of shopbots and aggregation sites has many online sellers fearing that their products will be perceived as homogeneous offerings, as compared to those of competing products, and price wars may erupt. Before the arrival of shopbots, online businesses maintained higher prices due to the lack of perfect information between buyers and sellers and the added convenience that buyers received from purchasing products online in lieu of conventional retail outlets. Shopbots have weakened the ability of online firms to charge higher prices by reducing the effects of imperfect information and by giving online buyers increased convenience through technology that searches a variety of sites for pricing and product information. The compilation abilities of shopbots has led to predictions that the Internet will lead to the commodization of products, whereby all products are viewed equally and the customer selects products based solely on price (Rayport and Jaworski, 2001).

In other words, many believe that the Internet, in effect, will homogenize products, resulting in price competition. As traditionally differentiated markets move towards commodity markets through consumers' use of shopbots and aggregators, previously differentiated markets will be defined by:

Retailer brand is an important determinant

- a reduction in buyers' incremental costs of obtaining price and product information;
- the inability, in theory, of sellers to easily "obscure their quoted prices" as third-party aggregators demonstrate competing prices side by side; and
- equilibrium's positive effect on buyers through increased price competition and a reduction of sellers' market power (Bakos, 1997).

Are prices lower on the Internet?

While there is evidence that prices for some types of products on the Internet are lower than in traditional retail outlets, nevertheless, it remains inconclusive as to whether this assumed perfect competition consequence will materialize as believed. For example, one study found that prices for books and CDs on the Internet were 9-16 percent lower than prices in conventional outlets depending on whether taxes, shipping, and shopping costs were included in the price. Another study of the online book market found that prices were lower for books carried by more online stores, and for more widely advertised books. The majority of books sold over the Internet were sold by Amazon.com, Barnes & Noble.com and Borders.com and these stores had similar prices. Yet, online book sellers, to various degrees, had successfully pursued a differentiated strategy on dimensions of brand, price and assortment. Similarly, a third study of book buyers using a shopbot, found that retailer brand is an important determinant of consumer choice. Moreover, these same three Internet book retailers held an average \$1.72 advantage on same title books over more generic Internet book retailers. Also, Amazon held a \$1.30 advantage over the other two name-brand retailers. Even though it would be expected that Internet shoppers who use a shopbot would be the most price sensitive buyers, they still seemed to use brand name as a signal of service quality and were willing to pay more for a book from one of these three retailers (Clay *et al.*, 2001; Smith and Brynjolfsson, 2001).

A study conducted by Ernst & Young in the late 1990s found that 87 percent of the 30 consumer products tracked could be bought online at the same price or cheaper than in retail stores. For example, the nation's biggest drugstore chains – CVS, Walgreen Co., Rite Aid Corp., and Eckerd – were offering medicines online at 10 percent to 30 percent cheaper than those in their own stores (Johannes, 2000).

Less price sensitive and more loyal

Although the above evidence suggests that prices are lower on the Internet, it is not clear that prices are consistent with the expectations based on perfect competition. Other research exists dispelling the belief that the Internet leads to perfect competition. As indicated by the above research on a supposedly commodity product, books, competing on the Internet does not necessarily force online firms to lower prices. The primary reason behind the belief that the Internet does not necessarily force prices down is that research has shown that online consumers are not as price sensitive as had been previously thought. Consumers become less price sensitive and more loyal as the level of quality information on a site increases (Lynch and Ariely, 2000). Furthermore, although price is an important factor in a buyer's purchasing decisions, a J.P. Morgan report found a variety of other attributes including customer support, on-time delivery, shipping and handling, product content, privacy policies, ease of ordering, product information, Web site navigation and locks, and product selection that were rated more heavily in the purchasing decision than was price. In addition, a McKinsey study

Majority of consumers are not as price sensitive as expected

discovered that the majority of online buyers do not actively search competing sites to find the best deal: 89 percent of online book buyers purchase from the first site they visit; as do 84 percent of those buying toys, 81 percent buying music, and 76 percent buying electronics. Also, another McKinsey study found that fewer than 10 percent of North American Internet users could be classified as aggressive bargain hunters. Given the fact that online consumers do not actively search competing sites, it is not surprising that online retailers often set higher prices than those of their competitors. For example, Borders.com, Barnes & Noble.com, and Bertelsmann each charged approximately the same price, differing at most by 5 cents; however, these prices were substantially higher than the lowest prices offered at other online retailers (Baker *et al.*, 2001; Hamilton, 2001; Rayport and Jaworski, 2001).

Why the Internet may not lead to lower prices

The belief that the Internet will move electronic markets towards a perfectly competitive market seems logical if it is assumed that imperfect information within the exchange relationship will decrease, that consumers will become increasingly price sensitive, and that the usage of shopbots will drive differentiated markets towards homogenization and price competition. However, as noted earlier, studies have found that the majority of consumers are not as price sensitive as expected and they do not actively search competing sites before making a purchase decision, resulting in price dispersion or non-uniform prices across the various electronic markets.

Furthermore, although shopbots, in theory, should reduce information asymmetry and reduce consumer search costs, they really do not conveniently assist consumers in finding lower prices as had been previously expected. To make accurate price comparisons online consumers must have available not only the price of the product but also the shipping fees, sales tax, and other offer/transaction information. To collect and study all of this information requires time and outweighs the perceived reduction in search costs of online purchases. As the number of businesses online increases so will the information provided through shopbots, creating an information overload for consumers. As the information provided to consumers increases, they will reduce search costs by adopting decision shortcuts or heuristics (Suri *et al.*, 2001). These shortcuts may take the form of purchasing from a recognized and trusted site even though the prices on that site may be higher than those of competing sites. This decision to purchase from a recognized name may explain why online bookstores such as Amazon.com, Barnes & Noble.com, and Borders.com may receive higher prices than the competition and still earn significant sales.

Extensive marketing and advertising

Online consumers' tendency to purchase recognized brands or from reputable stores and recent events within the electronic commerce industry demonstrate that entry and exit costs are not low. To attract consumers to a site amidst all the online clutter requires extensive marketing and advertising expenditures. To remain in business and earn a profit with these significant marketing and advertising expenditures, online retailers must achieve high gross margins. High entry and exit barriers, as shown through the need to maintain high gross margins while increasing advertising expenditures, further explain the inability of the Internet retailers to lower prices. It is unlikely that the Internet will create a perfectly competitive market as the products are not commodities, even books. Consumers find that it is different buying from Amazon.com or BN.com because the online interface and after-

sales services are different. In fact, the retailers with the lowest prices do not receive the most sales (Smith and Brynjolfsson, 2001).

**New channel for
conducting business**

Leveraging pricing opportunities on the Internet

The Internet provides a new channel for conducting business. It creates an electronic marketplace where buyers and sellers meet, gather information, submit bids, agree on orders, keep track of the orders being processed, and complete the transaction electronically. This virtual marketplace provides opportunities for online companies to generate more profits if they develop and implement the right pricing strategies. In this section we describe some opportunities for using the Internet to improve profitability.

Research and testing capabilities

In traditional retail outlets sellers must undergo expensive and costly research in terms of time and resources to better understand the effects of pricing decisions on consumer purchases. However, the Internet through programs such as clickstream data that track current online sessions and cookies that track buying histories offers online businesses the opportunity to research consumer purchasing behaviors and test pricing decisions in real-time with minimal costs.

Uncovered new segment

For example, Zilliant tested various pricing strategies for its software services online by first reducing the price of four different products by 7 percent. The price reduction resulted in an increase in sales volume of 5-20 percent for three of the products, but unfortunately did not override the costs of implementing the lower price. However, Zilliant did discover that sales for the fourth product doubled. Further analysis of the data for the fourth product uncovered a new segment that the company had not targeted in the past – high schools and universities. As a result, Zilliant tailored a Web site with special prices to meet the needs of this new segment (Baker *et al.*, 2001).

Customer segmentation

As Zilliant discovered, the Internet provides a way to not only test different pricing tactics but to also discover new market segments. An increasing number of online businesses have realized this segmentation benefit of the Internet and have adopted research techniques to categorize customers based upon their desired product features, previous purchase behaviors, and accepted price ranges.

**Numerous benefits to
company**

Understanding each customer segment enables segment-specific prices or promotions. For example, United Airlines' electronic commerce division provides numerous benefits to the company. First, the division's unique online reservation system has eliminated an average of \$1.3 billion in conventional transaction costs (i.e. travel agent commissions and booking fees). In addition, the online reservation system has enabled United Airlines to provide customers with efficient and timely customer service. However, more important, United Airlines' online reservation system and its tracking software have uncovered eight distinct customer segments ranging from price sensitive consumers who prefer booking tickets through Priceline.com to business travelers requiring last-minute reservations (Schmeltzer, 2000).

Another example of how online segmentation has improved pricing structures is Ford's research of its online customers. Previously, Ford spent approximately \$10 billion annually by offering special promotions (i.e. cash-back rebate programs) to all customers across a wide range of models.

Online segmentation practices assist Ford in targeting promotions only at

those models that would most benefit and only to those buyers who would actually respond. The Internet allows companies to identify customers who are willing to pay premium prices (Cortese, 1998).

Important ingredient in the paradigm shift

Dynamic pricing

The ability to better segment consumers through Internet tracking technology has led to an increased usage of dynamic pricing practices by online businesses. The Internet is an important ingredient in the paradigm shift that will profoundly alter the way goods are marketed and sold. The Internet provides marketers the ability to offer special deals tailored specifically for individual consumers on all types of products and services from theater tickets to bank loans to a variety of merchandise. The Internet offers businesses a way to test prices, discover new segments, and continuously change prices based on customer preferences. Now that United Airlines has separated its market into eight customer segments the company will be better able to develop a targeted pricing schedule. In fact, airlines were one of the first industries to charge different prices online for essentially the same product, resulting in price changes several times an hour that make it quite likely that people sitting next to each other paid different fares.

No longer an excuse for not changing prices

One of the important advantages of the Internet is that it provides a way for firms to move from fixed prices to variable pricing. Previously, most firms changed list prices infrequently as the cost of implementing a price change throughout the distribution system could be quite high. (The cost of implementing a price change is referred to as a menu cost.) For firms with a large product or service offering, it would take months for price changes to filter throughout the distribution system. The Internet reduces the menu cost and the time to change prices. Thus, there no longer is an excuse for not changing prices when they need to be changed. Moreover, increasing digitization of many aspects of businesses makes it much more feasible to tailor prices to segments or even individual customers (Pitt *et al.*, 2001).

Transparency and efficiency go both waysIt should be clear that transparency and efficiency go both ways. If it is easy for buyers to compare prices on the Internet, so it is relatively easy for companies to track buyers' behavior and adjust prices accordingly. Just as it is easy for a price conscious buyer to find a low price via the Internet, the Web increases the chances for the firm to find a buyer willing to pay a higher price. Online companies can store large amounts of customer information such as past shopping behavior, demographics and preferences and can capture consumer surplus more easily by charging different price-sensitive customers different prices. Moreover, because effective pricing requires access to historical data and customer insights generated over time, it becomes difficult for new entrants to replicate dynamic pricing capabilities. Online companies with a large customer base have a competitive advantage over new entrants as customer data are a valuable resource for generating sales and profits and it takes time for the new firms to accumulate sufficient relevant information to be effective (Kambil and Agrawal, 2001).

Issues of pricing

Although dynamic pricing may prove beneficial to online businesses, managers must pay close attention to issues of pricing fairness and the potentially negative effects of differential pricing on brand loyalty. In September 2000, Amazon.com's customers discovered that the e-tailer was selling the same DVD movies at different prices to different customers. Depending on previous purchase patterns with Amazon, a DVD such as *The*

Higher prices for same product

X-Files – The Complete Second Season could cost a customer anywhere from \$80-\$100. Consumers soon uncovered the differential pricing and flooded chat boards with complaints against the company. Amazon quickly issued reports disclaiming that it was charging different prices for the same product for different customers depending on previous shopping behavior. Instead, Amazon stated that it was merely testing “how customers respond to various prices”, quickly canceled its differential pricing and refunded the difference to customers who paid the higher prices (Adamy, 2000).

Amazon’s experience with differential or dynamic pricing, whether it intended to engage in this behavior or not, suggests that consumers negatively respond to paying different prices for the same product. Note that Amazon’s customers did not necessarily balk at paying higher prices; rather the shoppers became angry when they perceived that the company was using previous, personal shopping patterns to charge some consumers higher prices for the same product than other consumers. If online businesses adopt price testing and dynamic pricing, they must consider how customers will perceive these tests and openly communicate the qualifications and restrictions behind differential pricing terms.

Product differentiation

To decrease online buyers’ sensitivity to price, sellers must differentiate their products and brand. For example, Dell computer has differentiated itself from other PC manufacturers by offering online consumers the opportunity to choose a particular bundle of features. In essence, customers design their computer and determine a price relative to the bundle of features they want. In effect, the buyer becomes a price maker as well as a price taker.

A study of online wine sales discovered that price sensitivity for wines common to both online stores increased when cross-store price comparisons were made easy. However, easy cross-store price comparisons had no effect on price sensitivity for unique wines. Moreover, when cross-store quality comparisons were made easier for the common wines, price sensitivity decreased (Lynch and Ariely, 2000). Therefore, to avoid the theoretical commodization effects of shopbots, sellers must provide differentiating features and information to prevent declining prices and/or price wars.

Brand loyal to certain Web sites

Develop brand loyalty

As we have indicated earlier, research indicates that few people really do search extensively on the Web before they buy. Because of security concerns, surfers tend to be brand loyal to certain Web sites with which they have had good experiences. Consumers may not take the risk of searching for products with better attributes, and instead remain with the products and Web sites they are familiar with. This behavior results in increased consumer loyalty, which permits firms to increase their prices. For example, most customers of Amazon.com are loyal even though Amazon.com charges higher prices than some other online book retailers. Consumers are prepared to pay more to use a reputable seller and will pay more for a seller they have visited previously. This point suggests that there are important unobserved quality characteristics for which brand name is a signal, and that there may be important costs of switching from one seller to another. Developing a reputable brand name and receiving a price premium for the products is the same pricing strategy as in the brick-and-mortar world (Latacovich and Smith, 2001).

A way to attract buyers

Include shipping and handling in the profitability analysis

As a way to attract buyers, some online companies charge a relatively low price on the product but add a shipping and handling fee that is greater than the actual cost of shipping and handling. It has been estimated that nearly half of the biggest 50 online retailers make a profit beyond actual merchandise sales by charging shipping fees in excess of cost (Orr, 2001). Although shipping and handling fees can be a source of income, this practice may be perceived to be an unfair practice. Moreover, using shipping and handling as a source of profits assumes that buyers do not pay attention to these charges. However, if shoppers come to believe that shipping charges are a “rip-off”, they are likely to abandon their virtual shopping carts (Neuborne, 2001). Part of this problem of how shipping charges are perceived is a result of the vast majority of start-up Internet stores providing free shipping even for very bulky items like dog food and cat litter. Of course, many of these dot com retailers did not survive and those that have are trying to catch up by now charging for shipping and handling. E-retailers seem to prefer to set a flat shipping rate as opposed to a weight-based shipping charge, because such a rate reduces the need to calculate the shipping and handling charge for each order. However, such an approach leads to some real difficulties. Consider the example of CD retailer CDNow that set a \$2.99 fee for shipping and handling for the first CD in an order, and 99 cents for each additional CD. An order of 200 CDs from CDNow would lead to a shipping and handling charge of \$200, even though the shipping cost to the company would be \$28 (Orr, 2001).

Products can be offered that exactly meet what different customers want

Offer multiple versions

Developing multiple products or versions is a way to generate more revenues by product differentiation and price segmentation as different versions of products are offered to certain market segments. For example, computer software can be bought in “student” and “professional” versions. In the student version, some features will be disabled, and this is sold at a significantly lower price. One type of software for designing experiments was priced at \$499 for the education institution market and about \$2,000 more for the commercial research market. For digitized products with near-zero reproduction costs, developing multiple versions at different prices can be a viable option to improving profitability. Products can be offered that exactly meet what different customers want at a price they are willing to pay (Daripa and Kapur, 2001).

A community of buyers and sellers

Create or participate in electronic marketplaces

The Internet can be used to build up a community for buyers and sellers or electronic marketplaces where a group of buyers and sellers interact to trade, consolidate sales, and set prices for transactions. In January, 2002, it was reported that 26 percent of organizations bought goods or services via online marketplaces (Dolan and Moon, 2000; cyberatlas.internet.com, 2002a, b). The way these exchanges function is buyers provide an “offer to buy” a specific item, e.g. a type of steel, and sellers provide an “offer to sell”. The Internet then provides a mechanism for the buyer to learn of current posted product offerings and the seller can learn of current product requests. If the item that buyers are seeking is listed in the product offerings, they can select a seller and submit a bid. Then the seller and buyer can negotiate to arrive at an agreeable set of terms for the transaction. Sellers likewise can learn of buyers seeking a product and submit an offer to one or more of these buyers, which can be accepted, rejected or negotiated by these buyers.

Major advantage

The Internet has opened up the globe for transactions. A major advantage of these electronic marketplaces is that they facilitate exchanges among buyers and sellers who neither meet, nor would have been involved in trade prior to the development of these organized exchanges. As we have noted above, while the buyer has access to many more suppliers which would be expected to place pressure on prices, so does the supplier have access to more buyers who may be willing to pay more for the product. Thus, it remains unclear as to whether these exchanges will lead to higher or lower prices than previously. It is likely that transaction prices will exhibit less variability over time than when buyers and sellers were restricted to more local markets.

Novel Internet pricing models

The Internet also makes possible many novel forms of pricing models. In this section we will review a few of those that have been successful.

eBay's trading platform

In September 1995, eBay founder Pierre Omidyar attempting to help his girlfriend trade Pez dispensers began a basic Web site called Auction Web. But his vision was more than just to help her sell this product. What he had in mind was to create an exchange market for a range of goods that was powered by individuals, not large corporations. He designed an Internet auction site that used the mechanism of a Dutch auction to allow relatively small sellers to sell collectibles in a much wider market. eBay has grown rapidly both in sales and in the community of sellers who regularly use the Web site to sell their products. Today, their goal is to build the world's largest online trading platform where practically anyone can trade practically anything (Schonfeld, 2002).

Large number of potential buyers

eBay has a very unique business model. As was his objective, Omidyar had created an entirely new market. While many other Internet companies primarily had borrowed something that existed offline and translated it into an online version, he had developed something that could not be done in the real world. Sellers are attracted to eBay because there is a large number of potential buyers, and buyers are attracted to eBay because of the broad selection of goods listed on eBay. eBay generates revenues in two ways. Listing and special placement fees – the fees sellers paid for listing their items – accounted for approximately 45 percent of eBay's total revenue. Final value fees – a percentage of the final sale price of the item – accounted for 55 percent. As the size of its community grew, profits grew also. The Internet provides a platform that enables trade and a bonding community to socialize by its feedback system where buyers and sellers can rate each other. eBay also tracks customers' information to improve its services and find other business opportunities.

Reversing the traditional functioning of retail markets

Priceline's reverse auctions

Priceline is another successful business model, which specializes in bidding/reverse auctions. Priceline (www.priceline.com) allows buyers to specify product requirements and the amount they are willing to pay and then make corresponding offers to the participating sellers, reversing the traditional functioning of retail markets (Turban *et al.*, 2000). For example, a person can specify that he/she would like to pay \$50/night for a three star hotel room in a certain area. Then the hotels that are willing to accept this price will respond. Once the bid is accepted, one cannot cancel the bid. The same bidding process works for air tickets and car rentals. Priceline is one of the first dot com companies to become profitable. "Excluding one-time gains

Leading sites for price comparisons

and losses, Priceline.com reported a pro forma profit of \$3.3 million, or 1 cent a share for the last quarter of 2001” (*The New York Times*, 2002).

Price comparison Web sites

The leading sites for price comparisons are Dealtime.com and mySimon.com. Within seconds, these price comparisons sites can perform automatic price and feature comparisons. Potential buyers simply visit the site, indicate the item of interest, and the search agent scans product and pricing information from a list of hundreds of online sellers stocking the items. Many of these sites charge merchants a fee to be part of their searches (Dolan and Moon, 2000). For example, mySimon.com generates its revenue by earning a commission every time a buyer accesses a merchant site and finally buys an item, through the search. mySimon.com plans to expand the depth of product information by offering detailed information about shipping and return policies and license its technology to sites with special-interest audiences (D’Innocenzio, 2001).

Summary

Initial online pricing analysis supported the idea that the Internet would create a perfectly competitive market. The assumed increase in information flow between buyers and sellers combined with the commodization effects of shopbots were to have resulted in lower online prices. Although there is some evidence to support this theory of the Internet creating perfect competition, more extensive research has found that online prices are not uniformly decreasing. In fact, in some cases online prices are higher than those of conventional retail outlets.

Maintain and update prices

Given that the Internet is not creating a state of perfect competition by forcing prices downward, pricing managers must understand how to use Internet technology to improve their pricing decisions. Now more than ever, through the use of Internet technology, managers are efficiently and effectively able to test pricing schedules and customer behaviors, segment their customers, continuously maintain and update prices, and differentiate their product and price offerings. In conclusion, the Internet is moving towards a completely different direction than what had been previously thought. Instead of uniformly low prices, online firms are using the Internet to create a market where uniform prices are increasingly rare.

References

- Adamy, J. (2000) “E-tailer price tailoring may be wave of the future”, *Chicago Tribune*, September 25, Section 4, p. 4.
- Armstrong, L. (1998), “Anything you sell, I can sell cheaper”, *Business Week*, December 14, pp. 130-2.
- Baker, W., Marn, M. and Zawada, C. (2001), “Price smarter on the net”, *Harvard Business Review*, Vol. 79, February, pp. 122-7.
- Bakos, Y. (1997), “Reducing buyer search costs: implications for electronic marketplaces”, *Management Science*, Vol. 43, December, pp. 1676-92.
- Brynjolfsson, E. and Smith, M.D. (2000), “Frictionless commerce? A comparison on Internet and conventional retailers”, *Management Science*, Vol. 46, April, pp. 563-85.
- Chicago Tribune* (2000), “Survey: more buying books, video on-line than in stores”, Section 4, January 11, p. 2.
- Clay, K., Krishnan, R. and Wolff, E. (2001), “Prices and price dispersion on the Web: evidence from the online book industry”, *The Journal of Industrial Economics*, Vol. 46, December, pp. 521-39.
- Compton, J. (2000), “Robot pricing tool fueling online duel”, *Chicago Tribune*, November 27, Section 4, pp. 1, 7.

- Cooper, J.C. and Madigan, K. (1999), "Happy new year, but for how long?", *Business Week*, December 27, pp. 49-50.
- Cortese, A. (1998), "Good-bye to fixed pricing?", *Business Week*, May 4, pp. 71-84.
- cyberatlas.internet.com (2001), "E-commerce numbers add up in December", available at: <http://cyberatlas.internet.com> (accessed 17 December).
- cyberatlas.internet.com (2002a), "Online purchasing increases in Q4 2001", available at: <http://cyberatlas.internet.com> (accessed January 30).
- cyberatlas.internet.com (2002b), "The world's online population", available at: <http://cyberatlas.internet.com> (accessed February 1).
- Daripa, A. and Kapur, S. (2001), "Pricing on the Internet", *Oxford Review of Economic Policy*, Vol. 17, Summer, pp. 202-16.
- D'Innocenzio, A. (2001), "Comparison pricing sites adjust approach", *Chicago Tribune*, July 9, Section 4, p. 4.
- Dolan, R.J. and Moon, Y. (2000), "Pricing and market making on the Internet", *Journal of Interactive Marketing*, Vol. 14, Spring, pp. 56-73.
- Green, H. (1998), "A cybershopper's best friend", *Business Week*, May 4, p. 84.
- Gurley, J.W. (1999), "Buy.com may fail, but if it succeeds, retailing may never be the same", *Fortune*, Vol. 139, January 11, pp. 150-2.
- Hamilton, D.P. (2001), "The price isn't right: Internet pricing has turned out to be a lot trickier than retailers expected", *The Wall Street Journal*, February 12, pp. R-8, R-10.
- Hof, R.D. (1999), "The buyer always wins", *Business Week E.Biz*, March 22, EB pp. 26-8.
- Johannes, L. (2000), "Drugstores underselling own retail stores in on-line battle", *Chicago Tribune*, January 24, Section 4, p. 9.
- Kambil, A. and Agrawal, V. (2001), "The new realities of dynamic pricing", *Outlook*, No. 2.
- Latcovich, S. and Smith, H. (2001), "Pricing, sunk costs, and market structure online: evidence from book retailing", *Oxford Review of Economic Policy*, Vol. 17, Summer, pp. 217-34.
- Lynch, J.G. and Ariely, D. (2000), "Wine online: search costs affect competition on price, quality, and distribution", *Marketing Science*, Vol. 19, Winter, pp. 83-103.
- Neuborne, E. (2001), "Break it to them quickly", *Business Week e.biz*, October 29, p. EB 10.
- (The) *New York Times* (2002), "Priceline.com tops forecast for quarter, but its shares fall", available at: www.nytimes.com (accessed February 5).
- Orr, A. (2001), "E-tailers shifting to for-profit shipping to bolster bottom line", *Chicago Tribune*, June 17, Section 5, p. 4.
- Pitt, L.F., Berthon, P., Watson, R.T. and Ewing, M. (2001), "Pricing strategy and the net", *Business Horizons*, Vol. 44, March-April, pp. 45-54.
- Rayport, J.F. and Jaworski, B.J. (2001), *e-Commerce*, McGraw-Hill Higher Education, New York, NY.
- Schmeltzer, J. (2000), "United Airlines moving to get friendlier with Web commerce", *Chicago Tribune*, January 11, Section 4, p. 2.
- Schonfeld, E. (2002), "eBay's secret ingredient", *Business 2.0*, March, pp. 52-8.
- Smith, M.D. and Brynjolfsson, E. (2001), "Consumer decision-making at an Internet shopbot: brand still matters", *The Journal of Industrial Economics*, Vol. 46, December, pp. 541-58.
- Suri, R., Long, M. and Monroe, K.B. (2001), "The impact of the Internet and consumer motivation on the evaluation of prices", *Journal of Business Research*, Vol. 55, pp. 1-12.
- Tang, F.F. and Xing, X. (2001), "Will the growth of multi-channel retailing diminish the pricing efficiency of the Web?", *Journal of Retailing*, Vol. 77, Autumn, pp. 319-33.
- Turban, E., Lee, J., King, D. and Chung, H.M. (2000), *Electronic Commerce A Managerial Perspective*, Prentice-Hall.
- Wyner, G.A. (2001), "New pricing realities", *Marketing Research*, Vol. 13, Spring, pp. 34-5.

This summary has been provided to allow managers and executives a rapid appreciation of the content of this article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present

Executive summary and implications for managers and executives

The Internet isn't driving down prices

Standing at the bar in my local the other day a regular subject arose – the price of beer. More significantly, a couple of the regulars were grumbling about how a pub down the road charged less for a pint. It struck me that this familiar grumble helps us to understand the point being made by Kung, Monroe and Cox. If price was the only determinant of my friends' beer purchases, they wouldn't be stood at the bar with me but would be at whatever local pub offered the lowest price (an easy and pleasurable research project).

When the Internet began to take off, we were led to believe that it would be driven by price. Since consumers would have more complete knowledge of prices in the marketplace, they would seek out the lowest price. This would act to drive down prices and would remove many of the "sticky" factors that provide the opportunity for businesses to charge a premium – lack of time, shortage of information and incomplete product comparison. For some the advent of Internet shopping meant another nail in the coffin of the traditional brand.

In effect, all products would become commodities and prices would fall towards the equilibrium point implied by the theory of perfect competition. As some people have found out (expensively), this has not proven to be the case. Brands still matter and are still used as an indication of quality and trustworthiness. As the guys in the pub demonstrated, price is not the only factor influencing our purchase regardless of the medium through which we buy or the information on prices available to us.

What motivates Internet buyers?

Kung et al. dismiss the idea that the Internet "would create a perfectly competitive market". The authors point out that while some areas have seen prices fall online in other cases prices on the Internet are higher than those of conventional retail outlets. This begs the question about the reasons why people use the Internet to purchase goods and services. If it isn't the attraction of lower prices what is it?

One factor might be simply that online buyers believe they are getting a bargain because they are buying online. The same factors that led to businesses seeing online markets as driving prices down will have informed consumers – online buyers have bought the myth of the Internet providing "perfect" information.

A second factor is more prosaic – using the Internet saves time and effort. This "convenience" factor must be an important influence especially for the growing number of consumers who are seen to be "time poor". We don't have to go into town, find a parking place, locate the goods we want, queue up to buy them and then lug them home. Instead we simply click on our computer and, hey presto, the goods arrive at our door a few days later. For these consumers, this convenience has a value and they may be willing to pay a premium over and above the price they would pay in the high street just to receive such a benefit.

A third factor relates to product information. When we seek out product information, we are not just looking for information about price but also seek for other information. We want to know about reliability, quality and fit with our requirements. We may choose to buy the cheapest but equally we may

choose the product that has the right features and is assessed as the most reliable. The Internet gives us more ready access to this non-price information and, as such, represents a valuable tool for consumers to research purchases. It is worth noting here that, for some consumers, the final purchase is made in a conventional store following research online.

Finally, some people just enjoy the Internet – they get pleasure from wandering round the virtual world. Such people's online purchase is more a factor of inhabiting a virtual world than it is of any rational decision-making process.

How should marketers approach pricing on the Internet?

It was always a nonsense to suggest that the Internet would create a situation of perfect competition and those who put forward this argument and those who bought it have discovered that the same asymmetry exists online as exists in the real world. For marketers we return to our basic principles and should seek to persuade people of our product's superiority.

Just as in conventional marketplaces, we are able to segment customers, test different levels of price, research customer behaviour and differentiate products and price offerings. But there's a further opportunity which Kung et al. describe and investigate – new pricing and selling models only made possible by the technology of the Internet.

Kung et al. describe the emergence of online auctions where a virtual marketplace is created and the "retailer" earns revenue through placement fees and commission. This is not strictly a pricing model – more a business model – but it indicates how the Internet will generate innovate retail approaches. Similarly the reverse auction (where buyers say what they want and how much they will pay and those offering the product or service respond) represents a business model that would be very difficult to reproduce in a conventional environment.

The lesson for marketers is not to get too hung up about lower prices but to look at ways in which the advantages of the Internet are put to use getting the potential customer into a selling environment. Price matters – and the Internet increases the level of consumer information about prices. But consumers do not base their purchase decision purely on the price listed – if they did my local pub would be empty!

(A précis of the article "Pricing on the Internet". Supplied by Marketing Consultants for Emerald.)