Harvard Business School

9-801-306
December 11, 2000

Online Retailers

This note describes online retailers of physical goods, companies that use the Internet to sell a variety of products ranging from dog food to jewelry. The first section of the note defines online retailers and describes different ways to categorize them. The second section presents a summary of the various ways that online retailers create value for their customers. The third section analyzes the economic model for online retailers, focusing on their revenue and cost drivers, and how this model compares to the experience of offline retailers. Building on that analysis, the fourth section examines the payoff to online retailers from pursuing a "Get Big Fast" strategy, i.e., investing aggressively in customer acquisition and brand building. The fifth section briefly describes a set of "best practices" that online retailers should employ to improve their odds of success. The sixth section discusses the unique challenges that *offline* retailing companies face when they move their businesses online. The final section explores a series of management and strategy issues relevant to online retailers, including: 1) The implications of shopping "bots," software programs that consumers use to identify Internet retailers with attractive prices for a given product; 2) The threat of disintermediation that online retailers face from manufacturers of the products they sell; and 3) The arguments for and against pursuing a hybrid strategy, e.g., combining the online retailing model with another Internet business model, such as online content provider or Internet access provider.

What Are Online Retailers?

Definition and Delimitations

Online retailers are companies that: 1) use a website to merchandise newly manufactured physical goods for which they take title; and then 2) rely on third party service providers (e.g., the U.S. Postal Service; UPS) to deliver those goods from remote warehouses. Three delimitations of this definition are important. First, the note is not concerned with online auction sites such as eBay that create a market for second-hand ("used") goods. While eBay may determine how those goods are presented, it does not really merchandise its site, because sellers determine the selection of goods available for sale. Furthermore, eBay does not take title to the goods traded on its site, and does not arrange for their shipment; delivery arrangements are negotiated between the buyer and seller directly.

Second, the note does not describe the business model for online retailers with their own infrastructure for local delivery, e.g., Webvan or Kozmo.com. Compared to companies that rely on

Assistant Professor Thomas Eisenmann and Research Associate Alastair Brown prepared this note as the basis for class discussion.

third party shippers, firms that maintain local delivery capabilities face very different strategic issues—most notably the need to achieve high density of sales within a given geographic area to increase the utilization of delivery personnel.

Finally, the note does not discuss companies that use the Internet to sell services (e.g., American Airlines) or information goods (e.g., companies that offer the digital download of software or music). Such companies have cost structures unlike those of retailers of physical goods, and thus face different challenges for competitive success. Specifically, scale economies are often very high for companies that sell services and information goods online, because their cost structures tend to be dominated by fixed elements. Scale economies, along with high operating leverage, provide an especially strong incentive for such companies to pursue aggressive growth strategies. In contrast, for retailers of physical goods, variable expenses for merchandise, delivery, and customer service tend to represent a large share of total costs.

Taxonomies

There are two categorizations that can be made of online retailers. First, we can divide online retailers by their merchandising emphasis: some are horizontal in their focus, i.e., they sell across many product categories, whereas others are vertical, selling in one distinct area. In the offline arena, mass market discounters like Wal-Mart and department stores like Macy's would be considered horizontal retailers, while Toys-R-Us and Home Depot would be considered vertically focused. Online, Amazon.com would clearly be a horizontal retailer because it sells an increasingly broad range of products, including books, music, consumer electronics, kitchen appliances, power tools, health and beauty products, and patio furniture. In contrast, Garden.com, eToys, and Pets.com would be considered vertically focused, because they concentrate on a single category of merchandise.

Second, online retailers may be categorized by the pricing format they employ. The most common format, both on or off the Web, is fixed pricing. Yet, some sites employ other models. For example, Egghead.com sells computer hardware and software products (for which it holds title) through auctions. "Group buying" (also known as "demand aggregation") sites, such as Mercata.com and MobShop.com, employ a pricing scheme whereby increased purchasing prior to a deadline reduces the price of that product (based on a "demand curve" pre-negotiated with the product's supplier) for all shoppers who previously had made a purchase commitment. Finally, some online retailers, such as Buy.com, have experimented (unsuccessfully) with a "deep discount" model. Buy.com once sold products at cost, hoping to profit by assembling a database of consumer preferences and then selling manufacturers access to those consumers for advertising and marketing programs. After this experiment yielded poor results, Buy.com raised its prices.

How Do Online Retailers Create Value For Customers?

The total U.S. retailing market, worth roughly $1.6 trillion in 1999,[1] is currently split between three selling formats. Internet retailing now makes up about 1% of the total, while traditional printed catalogs account for 7-8%, and "bricks-and-mortar" store operations control the remaining 90%. When it fully matures though, online retailing is expected to grow to roughly 15-20% of total U.S. retail spending, or two to three times the existing market share for printed catalog retailers.[2]

Catalog and Web purchases are similar in two important ways: in neither case can consumers directly inspect the goods prior to purchase, nor can they access the goods immediately after purchase—unlike customers of bricks-and-mortar stores, catalog and Web shoppers must wait for

[1] Goldman Sachs, " Internet Retailing," June 1999, pg.2.

[2] Ibid.

delivery and inspection. Given these similarities, the prediction that sales for online retailers will eventually be two to three times greater than catalog marketers' revenues is noteworthy: it suggests that web retailing adds significant value for consumers, beyond what printed catalogs can deliver. This value added will be manifested in three ways: 1) an increase in online households (expected to grow from 37.3% of households in 1998 to 63.4% in 2003); 2) an increase in the percentage of people online who are purchasing (expected to grow from 23% in 1998 to 54% in 2003); and 3) increased spending online per buyer (expected to more than double from $412 in 1998 to $919 in 2003) (see **Exhibit 1)**.

Attributes of Product Categories Well Suited for Web Retailing

While Internet retailers are expected to account for 15-20% of overall U.S retail spending, the share they capture will vary greatly by product category. For example, analysts predict that over 40% of PCs will be bought on the Internet by 2003, but only about 2% of footwear (see **Exhibit 2**). Many factors determine whether a category will be well suited for Internet retailing, including the following attributes:

- *Information-rich products.* Websites can offer graphics and detailed text information (e.g., objective third party reviews) to help prospective buyers better understand a product's features and benefits. Streaming video can demonstrate a product in use; comparison shopping and collaborative filtering[3] tools can guide consumers to products that best fit their preferences. Whereas the quality and availability of sales help often is uneven in bricks-and-mortar stores, websites can consistently deliver a clear, compelling sales pitch. Such benefits are most salient for products that are feature-rich and differentiated along multiple dimensions.

- *Large selection.* Internet retailers can offer a nearly unlimited product selection, which is especially important for categories such as books, whereas bricks-and-mortar and catalog retailers face space constraints that prevent them from offering a full range of products.

- *Little need for hands-on service or product trial.* Products such as apparel often are sold only after product trial and thorough examination—buying leather pants over the Web is a risky proposition. Likewise, some goods are bundled with extensive customer service that lends itself to face-to-face encounters between the shopper and the sales rep. For example, if you are building a patio you might prefer to go to a Home Depot bricks-and-mortar store and have one sales associate answer all your questions, rather than be stuck chatting electronically or by phone with someone from a web outlet.

- *High value-to-weight ratio.* Internet retailers either ask consumers to bear shipping costs or absorb such costs themselves through "free shipping" promotions. Consequently, heavy or bulky goods, such as dog food, that have a low ratio of product value to shipping cost, can be difficult to sell online at a profit. By contrast, music CDs are well suited for online retailing because they can be shipped easily, and their value-to-weight ratio is quite high.

- *Easily customizable products.* Complex, multi-featured products that lend themselves to customization are well suited to the Web. For example, Dell, a leading PC manufacturer,

[3] Collaborative filtering involves software that analyzes a user's page-views and/or purchases, and based on their behavior concludes that he or she is most "like" a set of other users who have been observed to purchase certain other goods. Based on these inferences, a site can give recommendations or highlight special items that should be appealing to the user.

generates about half of its sales online, allowing customers to custom-order a PC by selecting its processor speed, amount of memory, hard drive size, and so forth.[4]

- *Rapid changes in stock availability, demand, and/or price.* Consumers can use websites to check the availability of hard-to-find items (e.g., a Playstation 2 console in October 2000)—information that can be frustrating and time consuming to obtain by phoning or visiting bricks-and-mortar retailers. Likewise, when demand for a product emerges rapidly (e.g., for the lipstick that Monica Lewinsky wore during her interview with Barbara Walters), selling through the Web avoids the delays endemic in shipping goods through distributors to thousands of bricks-and-mortar outlets.

- *Replenishment driven.* Internet technology can be employed to automate the frequent re-ordering of groceries, pet supplies, pantyhose, and similar items used daily. Internet retailers who can lock customers into a "sticky" replenishment cycle then have an opportunity to cross-sell additional products and services to these consumers.

- *Unpleasant bricks-and-mortar retailing environments.* Most consumers dislike grocery shopping, finding it time consuming and repetitive. Parents often dislike shopping for toys with their children because kids in a toy store tend to become very excitable. Car buyers often find car salesmen manipulative, pushy, and dishonest. The Internet helps consumers avoid these unpleasant bricks-and-mortar retailing environments.

Besides these category-specific attributes which determine where web retailers will find success, online retailing has several generic advantages over other shopping formats. First, like printed catalogs but unlike most bricks-and-mortar stores, online retailers can offer "24/7" service, i.e., consumers can shop 24 hours a day, 7 days a week. Second, because the web can be accessed anywhere, online retailers (like catalogs) can reach consumers who might live too far away to shop at their bricks-and-mortar stores. Third, like catalogs but unlike bricks-and-mortar stores, many online retailers in the U.S. currently can offer consumers the opportunity to shop without paying sales taxes, due to a federal government moratorium on Internet taxes.[5] One academic, University of Chicago economist Austan Goolsbee, has predicted that if this tax moratorium ends, online spending will drop 30%.[6]

Barriers to Online Shopping

Although prices offered by online retailers have been estimated to be 6-10% below the prices offered by their bricks-and-mortar competitors (after factoring in shipping costs and sales taxes),[7] there are still many reasons why consumers might not shop via the Web, e.g., the inability to handle the product before purchasing it; confusing website navigation (see **Exhibit 3**). The principal barrier

---

[4] Stephanie Stoughton, "The Next Economy Virtual Businesses and Bricks-and-Mortar Companies try to Blend the Best of Both Worlds," *The Boston Globe* (October 10, 2000): F5.

[5] Like printed catalog marketers, online retailers are only required to charge sales tax if they have a "nexus" of operations in the state (e.g., bricks-and-mortar stores or a warehouse) where an order is placed. This favorable tax treatment was extended by the U.S. government in October 1998 to encourage the growth of the Internet when Congress declared a three year "tax moratorium." As of October 2000, legislators were still debating whether to level the playing field between bricks-and-mortar and online retailers by introducing an Internet sales tax.

[6] Mike France, "A web sales tax: not if, but when," *Business Week* (June 6, 1999): 104.

[7] Erik Brynjolfsson and Michael D. Smith , "Frictionless Commerce?," *Management Science* (April 2000): 563-585; others posit a 14-21% discount (excluding taxes and shipping) for electronics, food and other categories: "Faster! Better! Cheaper?," *Business2.0* (April 2000): 376-378.

to online shopping, however, continues to be consumer concern about sending credit card information over the Web. This fear has spawned a number of initiatives to boost online shoppers' confidence, e.g., the development of secure "electronic wallets"—software programs that store consumers' personal data and make it unnecessary for them to re-enter this information when ordering.[8]

Consumers' lack of familiarity with the brands of some pure-play companies (i.e., companies that were "born on the Web" and lack bricks-and-mortar or print catalog heritage) can compound their concerns about credit card theft. Consumers with limited Internet shopping experience worry that "fly-by-night" outfits will take their money but never ship their merchandise. Thus, building consumers' trust is an especially important task for young websites.[9]

Another difficulty with online shopping is that customers must be willing to wait for home delivery. The inability to provide instant gratification is a more serious shortcoming for some types of products than others though; in particular, consumers tend to be less concerned about delivery delays when they are purchasing gifts for a special occasion. Likewise, when consumers purchase a custom-ordered product, (e.g., a Dell computer), they expect to wait a few days for delivery.

Still, even if they are willing to defer gratification, home delivery is difficult to manage. Seventy percent of the population is not home during the day.[10] Theft and fraud issues may arise if a package is simply left on a doorstep, and many consumers do not have access to package delivery services at their workplace.[11] A solution to this problem could be for consumers to install a lock box accessible to package delivery services. One online grocery delivery service, Streamline, has even extended this idea by installing refrigerators within its customers' garages.

Different types of shoppers

Of course, different consumers will have different reactions to the advantages and disadvantages associated with Internet retailing; a website must often tailor its pricing, merchandising approaches, and customer service to the needs of distinct customer segments. According to the ebates.com Dot-Shopper Survey, conducted by Harris Interactive, online shoppers might be classified into the following groups: [12]

- *E-bivalent Newbies*: Newest to the Internet, this population is somewhat older, likes online shopping the least among the six types, and spends the least amount of time online.
- *Time-Sensitive Materialists*: This group is most interested in saving time and maximizing convenience, is less likely to read product reviews, compare prices or use coupons.
- *Clicks & Mortar*: These individuals tend to shop online but prefer to buy offline, are more likely to be female homemakers, have privacy and security concerns about buying online, and visit bricks-and-mortar shopping malls most frequently.

---

[8] Nancy Imperiale Wellons, "E-Wallet's Potential Is Unfolding," *Orlando Sentinel* (November 15, 2000): D26.

[9] Cheskin Research and Sapient, "eCommerce Trust Study," (January 1999).

[10] Denise Caruso, "Technology: Digital Commerce," *New York Times* (March 30, 1998): D5.

[11] Jupiter Communications, " Pricing Strategies," July 1998.

[12] All shopper types are from the ebates.com Dot-Shopper Survey, conducted by Harris Interactive with 3,042 respondents who have made at least one purchase online.

- *Hooked, Online & Single*: Members of this group are more likely to be young, single males with high incomes, have been on the Internet the longest, play games, download software, bank, invest and shop online the most often.

- *Hunter-Gatherers*: More likely to be married, this group is typically age 30-49 with two children, most often goes to sites that provide analysis and comparisons of products and prices.

- *Brand Loyalists*: These people are the most likely to go directly to the site address of a merchant they know, are the most satisfied with shopping online, and spend the most online.

Online Retailer Economics

Economics For Online Versus Offline Retailers

A central debate surrounding the burgeoning online retail market is whether online retailers, when they reach maturity, will truly have margin structures that are superior to those of their offline counterparts. Initially, there was great excitement on Wall Street about e-commerce, but enthusiasm—and dot-com stock prices—faded between the Spring and Fall of 2000. This begs the question, why were investors so excited during 1999? *Do* online retailers have intrinsic economic advantages over bricks-and-mortar stores?

Operating Costs. One possible intrinsic advantage is tremendous operating cost reductions that may be obtained—at least in theory—by online retailers, once they reach scale. In fact, a Bank of America Securities analysis of the economic models for a bricks-and-mortar book retailer and an online book retailer at maturity (see **Exhibit 4**) suggests that the online retailer will have an operating margin 4% lower than the margin for a traditional superstore, derived as follows:

- Bricks-and-mortar stores spend 10% of revenue on rent and 14% on in-store labor for check-out, stocking shelves, etc. By contrast, a mature online bookseller is projected to spend only 3% of its revenue developing and maintaining its website and 12% of revenue on its warehouses, customer service, and other operating expenses.

- Lacking a physical location to attract customers, the online retailer is expected to spend more on advertising—4% of revenue, net of co-op ad reimbursements from publishers—compared to 2% for the bricks-and-mortar chain.

- Finally, the online retailer is expected to have lower General & Administrative expenses than its offline counterpart (1% of revenue versus 3%), presumably due to the latter's need for a regional management infrastructure to coordinate the activities of several hundred stores.

Although this operating cost advantage is impressive, it is not large enough to offset the effects of pervasive discounting by online merchants, and the fact that larger offline players command volume discounts that reduce their cost of goods sold. Reflecting these differences, Bank of America projects a 28% product margin for a mature Internet bookseller, compared to a 40% product margin for a superstore chain. As a percentage of revenue, the online retailer also is expected to pay higher inbound freight charges (due to its lower sales volume, it earns more modest discounts) and

higher credit card processing fees,[13] but it can offset a portion of these higher costs by earning a modest profit on shipping—a common practice among printed catalog retailers.[14] After accounting for these cost elements, the gross margin for an online bookseller is estimated to be 25%, versus 38% for a bricks-and-mortar chain. Subtracting operating costs equal to 20% and 29% of revenue for the online and offline players, respectively, yields an operating margin of 5% for the Internet company, versus 9% for the bricks-and-mortar retailer.

Working Capital. With a lower projected operating margin than offline players, why were online retailers so attractive to investors in 1999? To understand their appeal, we must examine the second economic advantage of Internet retailers: again, at least in theory, they utilize working capital in an extremely efficient manner. Online retailers, as with most businesses, pay their suppliers after sixty days or so. Consumers pay by credit card, so accounts receivable are minimal. Online inventory also turns very quickly, especially when retailers rely on distributors to hold inventory and manage fulfillment:

- Inventory turns at least 10 times per year for many Internet retailers, versus 3-5 times for their offline counterparts.

- Even when online retailers carry their own inventory, they can hold much less stock concentrated in a few warehouses than bricks-and-mortar retailers must hold at hundreds of stores.[15]

- Online retailers also have an inventory carrying cost advantage over printed catalog marketers (who otherwise share the advantage of only needing to maintain inventory at a limited number of warehouse locations). If a catalog marketer runs out of inventory, it cannot remove an item from its catalogs once they have been printed and mailed; consequently, it must maintain inventory at levels that are sufficiently high to minimize stockouts that could lead to customer dissatisfaction. An online retailer, by contrast, can simply take a product off its website if it runs out of stock.

With minimal receivables, modest inventories, and two months to pay suppliers, many online retailers have negative working capital. In 1998, for example, Amazon's working capital was 14% of revenue: the company actually generated cash as it grew![16]

Fixed Capital. The third economic advantage that online retailers have over their offline counterparts stems from the fact that Internet companies do not need to invest capital in stores. Property, Plant & Equipment (PP&E) for online retailers tends to be much lower as a percentage of sales, compared to bricks-and-mortar chains. For example, in 1998, before Amazon invested in its own warehouses, its PP&E was only 5% of sales, compared to 19% for Borders, a major bricks-and-

---

[13] According to *The Wall Street Journal* (Jason Sapsford, "Survey Says Online Fraud Increasing," November 3, 2000), online use accounts for 5% of all credit card transactions but 50% of fraudulent transactions. Online retailers are responsible for the cost of most fraudulent credit card claims, because their transactions fall into a category called "card not present."

[14] In the quarter ending September 30, 2000, Amazon's net profit on shipping was equal to 2.4% of its revenue, according to SEC filings.

[15] To maintain a given level of stock-outs, inventory must increase exponentially with a linear increase in the number of locations.

[16] Even after Amazon built its own warehouses in 1999 to handle high turnover merchandise—thereby boosting its inventories—it maintained negative working capital in excess of 14% of revenue.

mortar chain.[17] So, with negative working capital and very low investment in fixed assets, investors in 1999 believed that online retailers could earn lower operating margins and still earn substantially higher rates of return on invested capital than their offline counterparts.

Current Margin Structure for Online Retailers

The analysis above projects the margin structure for an online retailer that has reached maturity. How far are Internet retailers from achieving these long range targets? **Exhibit 5,** which presents historical and projected income statements for a sample of three publicly-traded online retailers (Amazon.com, eToys, and PlanetRx), suggests that as of 2000, the sample companies are far from earning a 5% operating margin!

Gross margin. Gross margin for online retailers typically is calculated as revenue from product sales and shipping fees paid by the customer, less the cost of goods sold, shipping expenses paid to third party courier services, and credit card processing fees. Gross margin is determined by retailers' pricing policies, their purchasing clout, and their distribution strategies.

With respect to pricing, as noted above, most online retailers price at a discount to their offline counterparts. Yet, as investors expressed increasing concern during the year 2000 about the sustainability of Internet companies' business models, this caused many online retailers to raise their prices and thus improve their gross margins. For example, Buy.com recently raised prices of their DVD players from $1,499 to $1,749 while Beauty.com and Bluefly.com raised shipping charges.[18]

Gross margins also tend to improve as retailers grow and exert more purchasing leverage over manufacturers and distributors. At a threshold scale that varies by product category, it is economical for online retailers to build their own warehouses and purchase directly from manufacturers, rather than relying on distributors for fulfillment. Ernst & Young reported in early 2000 that among a sample of 38 online retailers, 53% operated their own warehouses, 26% outsourced fulfillment, and 11% shipped directly from their suppliers (the balance relied on a mix of methods).[19] Amazon invested aggressively in in-house fulfillment operations in 1999, building warehouses that allow the company to directly ship fast moving items. Slower moving "backlist" book titles are still inventoried and shipped by Amazon's distributors.

According to analysts at ABN AMRO, purchasing economies that follow from volume growth should allow online retailers to improve their gross margins by 300-500 basis points over time. Furthermore, Goldman Sachs suggests that several gross margin improvement opportunities are available as online retailers increase their sales volume. First, by sourcing directly from manufacturers, online retailers can increase gross margin by 3% to 10%. Second, volume discounts can add an additional 0.5% to 1.0%. Third, co-op marketing funds that become available when a retailer buys directly from manufacturers can contribute 4% to 6% of sales in some product categories, thereby reinforcing the first two effects.[20]

---

[17] Amazon's PP&E as a percentage of sales rose to 19% in 1999 after it spent $300 million to build 5 warehouses: Robert D. Hof and Heather Green, "Suddenly, Amazon's Books Look Better," *Business Week* (February 21, 2000): 80. This percentage was expected to decline over time, because Amazon built capacity ahead of demand and only utilized 40% of its warehouse capacity in 2000: "Internet Industry Report," Goldman Sachs Global Equity Research, October 6, 2000, p.208.

[18] Rebecca Quick, "Shoppers Find Blowout Sale On Net Is Over," *Wall Street Journal*, (June 26, 2000): B1.

[19] Ernst & Young, "Global Online Retailing," January, 2000, pg.51.

[20] Goldman Sachs, "Path to Profitability," October 25, 2000, pg.6-7.

The gross margins for the sample companies in **Exhibit 5** are projected to average 19.9% in 2000. This compares favorably to the 12.0% gross margin earned in 1999 by a larger sample of 27 publicly-traded Internet retailers,[21] but lags the 25% target gross margin (27.5% before credit card charges) for a mature online bookseller presented in **Exhibit 4**. However, Amazon appears to have reached that target: for the quarter ending September 30, 2000, the company reported a gross margin of 27.2% (before credit card charges, which Amazon records as Sales & Marketing expenses) in its core U.S. book, music, and video unit.[22]

Distribution and Customer Service Expenses. Online retailers incur significant variable costs associated with picking and packing merchandise in their warehouses (or in outsourcing this function) and answering customer inquiries (by email and phone) about orders. A BCG survey indicated that customers of pure play online retailers (i.e., companies with no bricks-and-mortar stores or printed catalog operations) generate 1.1 service contacts per order versus 0.4 contacts for orders placed to online units of retailers with bricks-and-mortar and/or print catalog operations (i.e., "multi-channel" retailers). If each contact took just 5 minutes to process, then customer service costs for a pure play online retailer would account for nearly 8% of the value of an average order.[23]

Both distribution and customer service call centers are subject to some economies of scale, but the dominant share of costs in both functions are labor-related, and the per transaction savings realized as volume grows beyond a threshold level are modest.[24]

For these categories, the long range cost target for an online bookseller (see **Exhibit 4**) is 10% of revenue. For the quarter ending September 30, 2000, Amazon reports that the portion of its Sales & Marketing expenses related to fulfillment (which includes warehouse depreciation; labor costs related to receiving goods and picking and packing shipments; customer service costs; and credit card processing fees) were 15.1% of revenue—reasonably close the long range target, after backing out credit card fees that are estimated to be 2.5% for a mature online bookseller (see **Exhibit 4**).

Website Development. Online retailers incur ongoing costs to add features to their websites, e.g., personalization options; broadband content; customer relations management (CRM) systems that give call center personnel an integrated view of a customer's purchase history; and collaborative filtering that delivers recommendations to shoppers based on the user's browsing patterns, compared to those of other customers. These technology development costs are fixed: it should not cost much more for a large site to add such features than a small site. Consequently, website development expenditures should tend to decline as a percentage of revenue as sales volume grows, which has been the case for the companies profiled in **Exhibit 5**. For example, Amazon is projected to spend $267.7 million (6.4% or revenue) in 2001 on product development, compared to $160 million (9.8%) in 1999. By comparison, the target spending on R&D and technology for a mature online bookseller is 3.0% (see **Exhibit 4**).

---

[21] ABN Amro, "You've Got Mail!: Direct Marketing Moves Online," July 2000, pg.21.

[22] Company SEC filings.

[23] Boston Consulting Group, "The State of Online Retailing," 1998; Note that average order size used is $26.65. Furthermore, we assume the fully-loaded cost of a representative is $50K/year and the representative works 2,000 hours per year.

[24] For example, according to Roger Hallowell, "Everdream," Harvard Business School Case: 800-251 (June 20, 2000), most operating costs for a call center (e.g., labor, telecommunications, rent) vary directly with transaction volumes. Capital costs are an exception—capital spending for a 33-seat facility is about 50% of spending for a 100-seat facility. However, the depreciation of capital costs accounts for only a modest portion of total call center expenses. Hence, total operating cost per seat for a 100-seat facility is only about 4% lower than the cost per seat for a 33-seat facility.

Sales and Marketing. Pure play online retailers have spent very heavily on sales and marketing to build their brands and acquire customers. PlanetRx, for example, is projected to spend $75 million on sales and marketing in 2000, or 179% of revenue, compared to 43% and 21% for eToys and Amazon, respectively. These figures must be interpreted carefully, however: for eToys and Amazon, they include "fulfillment" costs related to distribution, customer service, and credit card processing (PlanetRx is less specific about its accounting policies, so it is unclear how such fulfillment costs are booked). When fulfillment costs are subtracted from Sales & Marketing expenses, Amazon spent 6.6% of its revenue on advertising, promotion, and the salaries of marketing personnel in the quarter ending September 30, 2000. This compares favorably to a long range target of 4% of revenue for a mature online bookseller (see **Exhibit 4**).

General and Administrative. The administrative overheads incurred by an online retailer—senior management compensation; costs for legal, finance, and human resource functions; etc.— tend to be semi-fixed, i.e., they will increase, but not in direct proportion to sales growth. As a company grows, it will need more human resources personnel to recruit employees; it will process more accounts payable transactions; it will pay larger fees as its auditors check more complex books; and so forth. Projected 2000 spending on General & Administrative (G&A) expenses is $11 million (25% of revenue) for PlanetRx, $32 million (9%) for eToys and $111 million (4%) for Amazon (See **Exhibit 5**). These figures suggest that online retailers must grow substantially before they reach the 1% target for G&A spending for a mature online bookseller (See **Exhibit 4**).

Will pure play online retailers ever be profitable? As of late 2000, many investors have grown skeptical of these companies' mounting losses. At the time of this writing, only one pure play publicly-traded online retailer—FragranceNet.com, which sells discounted perfumes—has earned a profit, although data from BCG indicates that about one-quarter of all pure play online retailers (including privately-held companies) are already profitable.[25] Furthermore, based on the analysis above, it appeared that Amazon was tracking toward operating profitability: Goldman Sachs projected that the company would earn a positive operating margin in 2001. Even as Amazon has diversified into additional product categories, it has made steady progress at improving its gross margins; reducing its distribution and customer service expenses and its advertising and promotion costs as a percentage of revenue; and leveraging fixed and semi-fixed website development and administrative costs over a growing sales base.

Skeptics may fairly note that Amazon is a special case. With an 18 month head start over its bricks-and-mortar competitors, it has dominated its core category to a degree that most other online retailers will never be able to match. Offline players in other product categories, such as office supplies, pet supplies, and health and beauty aids, have witnessed the consequences to Barnes & Noble and Borders of being "Amazoned", and have mounted vigorous efforts to avoid preemption by pure play Internet retailers. So, again, can pure play online retailers in these and other categories ever reach profitability? The answer is a qualified "yes": it should be clear that profit margins in online retailing are sensitive to scale, which in turn implies that companies must steadily acquire customers. However, in doing so, they must balance the cost of customer acquisition against the lifetime value of these new customers. This raises the question then, should online retailers pursue a "Get Big Fast" (GBF) strategy, i.e., should they invest aggressively in customer acquisition and brand building?

[25] Jennifer Couzin, "Net Retailers Aren't All Losers," *The Industry Standard* (November 6, 2000): 63 cites FragranceNet profitability; for BCG study, see **Exhibit 9**.

"Get Big Fast": A Strategic Imperative For Online Retailers?

Many Internet retailers have pursued "Get Big Fast" (GBF) strategies, embracing "land grab" logic. According to this view, companies will find it easier to stake out wide swaths of empty territory now, rather than try to capture that territory later, after it has been settled by others. "Getting Big Fast" through a single website is a lot easier than it would be offline, where rapid growth requires store-by-store expansion. For example, in the case of retailers, Amazon.com reached $1 billion in sales in three years, whereas it took 6 to 10 years for the bricks-and-mortar chains Home Depot, Wal-Mart, and Staples to reach that level of sales (at which point these chains had 60, 229, and 174 physical stores, respectively).[26] The payoff from a GBF strategy tends to be strongest when the following conditions apply: network effects are strong; scale economies (beyond network effects) are significant; and customer retention rates are intrinsically high. This section explores the extent to which these conditions apply for online retailers.

Network Effects

Network effects occur when the adoption of a product or service by a new customer increases the value of that product or service for customers already using it, because existing customers now can "connect" with additional parties.[27] The fax machine is a good example of a product that benefits from network effects: a fax machine is worthless if you are the only one who owns one, but when many people own them they are valuable. When network effects are strong, it often makes sense for a company to invest heavily to gain first-mover advantage. As users beget users, the first mover may develop an unassailable lead.

Network effects are minimal for online retailers, because Internet shoppers typically do not communicate with each other. My shopping session at Pets.com is in no way enhanced by the fact that you may have just shopped at that website. Chat groups and customer recommendations are among the few features of retailing websites that benefit from increased usage (and then only to a certain extent, e.g., chat rooms can become crowded), and these features tend to be of secondary importance in consumers' decisions about where to shop online.

Scale Economies

Companies benefit from scale economies when they can spread fixed costs over a growing revenue base. With some Internet business models—for example, portals—costs are almost entirely fixed, and operating margins increase dramatically with sales growth. Strong scale economies promote a "winner-take-all" dynamic: if the market leader has a superior cost structure, that company can reduce its prices or invest in superior service or features and thereby increase its lead.

While online retailers benefit from scale economies, a large share of their cost base—including the cost of goods sold and a significant portion of distribution and customer service costs—varies directly with revenues. Unlike content providers who may costlessly reproduce their product, retailers must pick, pack and ship each order. Volume growth does yield economic benefits for online retailers: it increases their purchasing clout and allows them to purchase directly from manufacturers and thereby internalize the margin earned by third party distributors. Volume growth also leverages the fixed cost elements in warehouse and call center operations and more notably in website development and administrative functions.

The magnitude of scale benefits varies by product category. McKinsey & Company estimates that a pure play online apparel retailer can improve its operating margin from 6% to 8% by increasing

---

[26] BancBoston Robertson Stephens, "E-tailing Update," 1999, pg. 11.

[27] See Carl Shapiro and Hal R. Varian, *Information Rules* (Boston, MA: Harvard Business School Press, 1999), pp. 173-225 and Philip Evans and Thomas S. Wurster, *Blown to Bits* (Boston, MA: Harvard Business School Press, 1999) pp. 112-113.

its sales from $100 million to $1 billion. For an online computer retailer, the same revenue change is estimated to yield a margin improvement from –3% to 9%.[28] McKinsey then calculates the breakeven point for pure play competitors in different online retailing categories, and compares that sales level to total projected online spending in the category in 2003. In both the bookselling and drugstore categories, the breakeven sales point for a pure play online retailer is $1.2 billion. However, McKinsey projects total revenues in 2003 of $4.9 billion for all online booksellers—implying room for four players to operate at the breakeven point—versus $2.5 billion for all online drugstores—implying room for just two players.[29] Based on this analysis, online drugstore companies have an economic incentive to consider a GBF strategy. However, if several competitors embrace this logic, the results can be ruinous, as noted below in the discussion of the online pet supply category.

Retention Rates

The payoff for GBF strategies improves when customer retention rates are high. If customers can be "locked in" before they sample a competitor's service, a first mover may cement its lead. Retention rates tend to be high in the face of strong network effects—once an auction marketplace aggregates a dominant share of the buyers and sellers of a given product, participants are reluctant to do business elsewhere. Other factors can also promote customer retention, most notably "switching costs," such as the hassles that customers incur when they switch Internet Service Provides and must obtain a new e-mail address, or when they switch online brokers and must transfer funds between accounts.

Online retailers have only a few attributes that promote customer retention; none do so very strongly. First, users may develop loyalties to a site based on its customer service performance or simply by gaining familiarity with the site's layout, but such loyalties do not tend to provide a significant switching barrier. Second, sites like Amazon.com that deliver personalized recommendations based on an analysis of past purchases can provide better advice if users concentrate the bulk of their category purchases at the site. Personalization technology is still not widely deployed, however, and recommendations may be confounded when users purchase gifts instead of buying goods for themselves.[30] Third, sites like Staples.com that support replenishment ordering create a switching cost related to users' time invested in entering past orders; subsequent order entry for replenishment items takes less time (the same is true for sites like Amazon that allow consumers to store their shipping and credit card information to complete "one-click ordering"). Finally, retailers that introduce loyalty programs encourage customer retention, but such programs have not been especially effective to date due to the difficulty of paying rewards large enough to change consumers' behavior. Rewards are constrained by the typical consumers' limited online spending in any given category, and by the thin variable contribution margins for most products (in contrast to airline travel, where rewards can be granted in the form of seats that otherwise would fly empty).[31]

Why the GBF Strategy Fails

It should be clear from the analysis above that the structural characteristics of online retailing typically prohibit an attractive payoff for companies embracing a GBF strategy. First, online retailers do not benefit from a network effect, where new customers beget more new customers, so their acquisition costs per customer are unlikely to decline during a period of concentrated marketing spending. Second, online retailers do not benefit from significant scale economies, at least compared

---

[28] McKinsey Quarterly, "From retailing to e-tailing," (Number 1: 2000): 144.

[29] Goldman Sachs, "Internet Retailing," (June 1999): 23; Goldman also sees a 50% market share as a natural ceiling in many online retailing categories, whereas they contend that the comparable offline ceiling is 25%. See also "Pure-Play: A Losing Model?," *The Industry Standard* (June 26, 2000): 192.

[30] Seamus McAteer, "Proactive Personalization," Jupiter Communications, August 19, 1999.

[31] For a survey of loyalty programs' developments see Grahame R. Dowling and Mark Uncles, "Do Customer Loyalty Programs Really Work," *Sloan Management Review* (Summer 1997).

to other Internet business models. As an Internet retailer's volume increases, it does not gain a dramatic cost advantage over rivals. Third, online retailers do not benefit from intrinsically high customer retention rates. Having spent heavily to acquire new customers, it may be difficult for them to encourage repeat purchases by those customers.

So, if the payoff from the GBF strategy is questionable, why did companies in category after category—e.g., toys, pet supplies, furniture, health and beauty, and apparel—pursue GBF strategies during 1999? In hindsight, the explanation seems to be that Amazon.com's incredible success spawned a wave of imitation. Scrutiny of the list of attributes of product categories well suited for online retailing suggests that Jeff Bezos found the "sweetest spot" in the market. Amazon's team then executed a GBF strategy brilliantly: notwithstanding the lack of network effects and switching costs in their business, they drove traffic to their site through portal deals and mass media advertising, built a brand that resonated with early Internet users, delivered excellent customer service, and thereby engendered strong customer loyalty and word-of-mouth recommendations. It took Barnes & Noble and Borders 18 months to mount a response, and by then, Amazon had raised huge amounts of capital to comfortably fund the trench warfare that then ensued.[32]

Scores of entrepreneurs and venture capitalists looked at Amazon's huge valuation—$4 billion in September 1998—and developed plans to become the "Amazon of the XYZ category." In most categories, however, dozens of startups vied to fill that role, and incumbents vowed not to be "Amazoned." Competitors engaged in what economists call "racing behavior": their belief was that the capital markets would disproportionately reward the market leader. The leader then would use its access to "free capital" to vanquish its rival. To this end, managing investors' perceptions was seen as crucial. Companies signed portal deals and aired expensive TV ads in part to drive traffic to their sites, and in part as a way to signal investors that they were still in contention for the leadership position. The race was on! Who would be the first in a category to go public?

As demonstrated by the experience of online pet supply retailers, winning that race could be a Pyrrhic victory.[33] In the pet supply category, by early 1999, a couple of dozen aspirants had been winnowed down to four well-funded players, all pursuing similar GBF strategies: Pets.com, which had Amazon.com as an investor; Petstore.com, which sold a majority equity position to the cable programming company Discovery Communications; PetSmart.com, owned by the largest bricks-and-mortar retail chain of the same name; and Petopia, which had Petco, the second largest bricks-and-mortar chain as an investor. All four firms embarked on aggressive programs of customer acquisition: they bid up the cost of portal deals and deluged prospective customer with "half off" and "free shipping" offers. Pets.com turned its sock puppet "spokes-animal" into a celebrity with a Macy's Thanksgiving Day Parade float and a multi-million dollar Super Bowl ad.

Savvy investors backed these companies, and it seems likely that they knew that they were speculating—betting that the "horse they backed" would either emerge as the winner in the GBF race, and be rewarded handsomely through an IPO, or that, in the worse case, they would sell out to the winner and receive valuable equity. As long as valuations for e-commerce companies held up, the risks seemed acceptable: even if you thought dot com valuations were excessive, the right question to ask was: Will you get your money back before valuations tumble?

However, the very logic that led several investor groups to separately conclude that it was reasonable to place speculative bets on online pet supply retailers, ultimately led in aggregate, to a

---

[32] Robert Spector, *Amazon.com: Get Big Fast* (New York: HarpersCollins Press, 2000); Jeffrey F. Rayport and Dickson L. Louie, "Amazon.com," HBS Case: 897-128; Jeffrey F. Rayport, Dickson L. Louie, Carrie L. Ardito and Holly S. Cameron, "Amazon.com," HBS Case: 898-084; Lynda M. Applegate and Meredith Collura, "Amazon.com: Exploiting the Value of a Digital Business Infrastructure," HBS Case: 800-330.

[33] Thomas Eisenmann, "Petstore.com," HBS Case: 801-044.

bloodbath in the category. In the year following their launches in early 1999, the four pet supply retailing sites lost, in total, about $400 million. Truly savvy investors might have foreseen that when four well-funded startups simultaneously launched GBF strategies, they were bound to get locked in an expensive war of attrition. They also might have reached three other conclusions about the intrinsic attractiveness of the online retailing of pet supplies:

First, like most other online retailers, pet supply sites do not exhibit the characteristics associated with a positive payoff for a GBF strategy. In particular, online pet supply sites experienced a high level of customer churn, reinforced by their willingness to offer promotional discounts. One magazine article quoted a "promiscuous" consumer as saying, "They all e-mail me specials. I order from whoever has the special. Sometimes, it's even free."[34]

Second, like most other online retailers, it was difficult for pet supply sites to achieve differentiation. By purchasing through offline distributors, pet supply sites had few opportunities to distinguish themselves from competitors through the breadth or depth of their product offerings. Also, after Amazon had demonstrated the value of developing an information-rich site, most e-tailers took that aspect of website design as a given. Finally, e-tailers could seek to differentiate themselves through the quality of their fulfillment operations and customer service—a realization that eventually led Amazon to invest hundreds of millions of dollars in building its own warehouses. However, it takes time to build the capabilities that yield superior service, and time is the enemy of a startup pursuing a GBF strategy.

Third, building on the previous point, online retailing is executionally-intensive: it does not scale as readily as some other Internet business models, because e-tailers have to receive goods, pick and pack the right items, deliver them to consumers when and where expected, and quickly and accurately answer customers' questions about merchandise and the status of their transactions. A retailing order can go astray at many points—a challenge that Yahoo! does not face in serving its users. The challenge of executing smoothly was compounded for online pet supply retailers in two ways: 1) their executives were so tightly focused on driving traffic to their sites and raising more capital that they often lacked time to focus on the quality of their logistics, fulfillment operations, and customer service; and 2) their web sites and information systems were new and were built in a hurry. As many e-tailers discovered in the rush to fill orders during the 1999 Christmas season, a cascading chain of events can lead to deteriorating customer service performance and escalating costs:[35]

- When their suppliers run out of stock, e-tailers cannot fill orders. In the case of online pet supplies, all of the top sites were located in California, and tended to rely on distributors within that state. When customers took advantage of deep discounts, the resulting surge of orders could exhaust distributors' stocks.

- Unless there are strong communications links between an e-tailer's website managers and managers in its fulfillment operations—a rarity in the chaotic rush to launch and grow an online company, especially when fulfillment is outsourced, as was the case for most of the competitors in the pet supply category—there can be a lag between the emergence of an "out of stock" condition and the removal of that item for sale on the website. Items may be ordered by consumers even though they cannot be immediately shipped.

- If the consumer receives, without explanation, an order that is only partially complete, he or she is likely to call the e-tailer to ask about the status of the order. If call center

[34] *Business Week,* "For Online Pet Stores, It's Dog-Eat-Dog," March 6, 2000.

[35] For an in-depth analysis of these dynamics, see R. Hallowell, "Service in E-Commerce: Findings from Exploratory Research," HBS case: 800-418 and "Service and Value in E-Commerce," HBS case: 800-384.

personnel, operating in outsourced facilities (as was the case for the most of the pet supply competitors), lack clear visibility into warehouse inventory management systems, they may have to manually track the order status and may be unable to answer the customer's inquiry on the spot. Links between call centers and warehouse databases require system integration; in their zeal to get big fast, startups may decide to launch before such integration efforts are completed.

By the Fall of 2000, Petstore.com and Pets.com had failed, and Petopia had laid off a large share of its staff. In category after category, results for online retailers were similar. Valuations plummeted as investors fled from the sector; companies that had burned through their private equity funding were unable to raise additional capital. By the Fall of 2000, a number of online retailers that had pursued GBF strategies—including CompUSA-backed Cozone.com, apparel retailer Boo.com, Disney-backed ToySmart, sporting goods retailer FogDog, and Garden.com—had failed, and many others (e.g., jewelry retailer BlueNile; PlanetRx) had laid off workers.

So, is the GBF strategy *always* a bad idea for online retailers? Not necessarily: Staples.com has been executing a GBF strategy with results that have been impressive, albeit not yet rewarded by investors.[36] The situation facing Staples.com was well suited for a GBF strategy in three ways. First, the channel structure in office supplies retailing does not easily accommodate entry by pure play online retailers: buying from wholesalers, the cost of goods sold for pure plays would be more than 15% higher than COGS/revenue for "big box" retailers like Staples (which leverages sales in excess of $7 billion in buying directly from manufacturers).[37] Second, *offline* competition in office supplies retailing is relatively fragmented. Together, the three leading superstore chains—Office Depot, Staples, and Office Max—only account for 10% of category sales. Consequently, Staples.com could pursue the large base of small office/home office buyers who were not yet offline customers of any "big box" retailer. With ample opportunities for increasing offline and online sales to this large prospect base, Office Depot and Office Max did not feel obliged to escalate their own online marketing efforts in response to aggressive moves by Staples.com. Finally, office supplies retailing involves replenishment ordering. The ability to automate reorders to avoid reentering data, and the ability for office managers to set and monitor spending limits leads to a fairly "sticky" customer relationship. With restrained competition, Staples.com has been able to maintain an acquisition cost per new customer in the range of $100, even with aggressive marketing programs. Annual spending per customer is expected to be in the range of $1,000, with a variable contribution margin of about 10%.

Lifetime Value of a Customer

The Staples.com example points to a broader rule: GBF-style investments in customer acquisition make sense for online retailers only when the lifetime value of new customers acquired exceeds the cost of acquiring those customers. As shown in the pet supply category, overheated competition will tend to drive up acquisition costs and drive down retention rates—and hence lifetime value, while in other cases higher intrinsic retention rates may make aggressive customer acquisition worth it.

It is instructive to turn again to Amazon to determine how it measures against this rule. Amazon had average sales per customer of $97 in 1999 (see **Exhibit 6**). If it reaches the long range margin targets suggested for a mature online bookseller presented in **Exhibit 4**, it will have a variable

---

[36] See Joanna Jacobson, Thomas Eisenmann and Gillian Morris, "Staples.com," HBS Case: 800-305 for more information.

[37] Figures in the preceding paragraph are taken from: Danielle Turnof Fox, "Company Update: Staples," *JP Morgan* (December 29, 1999).

contribution margin of 13% (gross margin less distribution and customer service expenses). Assuming that the average duration of Amazon's customer relationships is 3 to 4 years (a typical figure employed by industry analysts when evaluating online retailers, although little data is publicly available on actual customer retention rates[38]), then the present value of the variable contribution generated by each new customer would be $30. Since Amazon spent $19 to acquire each new customer in 1999 (see **Exhibit 6**), we may conclude that its marketing efforts are economically justified. The same is not likely to be true for eToys, which had lower sales per customer than Amazon in 1999 ($79 versus $97), a comparable gross margin (19% versus 18%), and much higher acquisition costs per new customer ($55 versus $19).

Tactics for Success

Given the description above of the economic challenges facing online retailers—especially pure plays—the obvious question might be: what tactics should they use to achieve success? Many "best practices" revolve around the competitive advantages outlined above in the section titled "How Do Online Retailers Create Value for Consumers?" To succeed, online retailers must leverage the Web's advantages, rather than simply moving a physical store-front or printed catalog online.

Customer service. A first tactic is to offer very high quality customer service. Some analysts believe that online retailers will achieve parity on selection and price, so service will be the biggest differentiator.[39] Four key aspects of high quality online service are stock availability, site design, reliable delivery, and responsiveness to customer inquiries. To date, most online retailers have fallen woefully short on all four dimensions of service. For example, Anderson Consulting reported that 40% on online shoppers encountered problems during the 1999 holiday season (see **Exhibit 7**); 35% of these consumers said they left a site when they experienced trouble and shopped elsewhere. While this performance is somewhat alarming, it should be seen in light of consumers' overall lack of satisfaction with their retailing experience—both online and offline. In fact, 73% of the consumers surveyed by Andersen reported that they were satisfied with online shopping, compared to 60% for bricks-and-mortar stores and only 56% for catalog shopping.[40]

The most frequent problem cited in the Andersen Consulting survey was stock shortages, mentioned by 64% of consumers. Managing stockouts is tricky for online retailers: should they bear the cost of increased inventories to avoid disappointing consumers? Amazon followed this approach in the toy category during the 1999 holiday season, and ended up writing off $39 million of excess inventory.[41] Again, to avoid disappointments, should retailers remove an item from their website when it is out of stock, forfeiting sales from consumers who might be willing to wait for the item to be shipped? Furthermore, if consumers are allowed to order out-of-stock items, what is the impact on service costs, as customers call or e-mail to check on the status of their order?

With respect to site design, the website should load quickly, be easy to navigate, and provide simple and straightforward ordering procedures. In a survey of consumers' satisfaction with online

---

[38] Banc of America, "Thinking Outside The big 'Box' superstore," 1999 and "Pure-Play: A Losing Model?," *The Industry Standard* (June 26, 2000): pg.192, citing McKinsey data both adhere to 3 year rule. Furthermore, according to Mike May, "Commerce Site Metrics," *Jupiter Communications* (August 1, 2000), only 74% of retailing sites even track data on repeat visitors.

[39] Goldman Sachs, " Internet Retailing," 1999.

[40] Numbers in the preceding paragraph are from John Sterlicchi and Barbara Genegler, "E-tailers' Costly Lessons," *Upside* (June 2000): 195, 200, citing Anderson Consulting.

[41] Robert D. Hof and Heather Green, "Suddenly, Amazon's Books Look Better," *Business Week* (February 21, 2000): 78.

shopping, 18% cited slow site performance as a problem and 6% said they could not easily search for products.[42] Poorly designed sites have a high rate of abandoned shopping baskets (purchase orders that are not completed after products have been chosen, due to frustration with ordering processes or other reasons, e.g., the customer's reaction after shipping charges are calculated); the overall rate of failed purchase attempts for online retailers has been estimated at 28%.[43]

Online retailers also have performed poorly in terms of on-time delivery. Forty percent of the consumers with online shopping problems in Andersen Consulting's survey cited this issue (**Exhibit 7**). Much of the problem may be attributed to "growing pains," i.e., the difficulty of maintaining process control in the face of annual growth rates often in excess of 100%. Another cause is reliance on manufacturers and distributors for fulfillment. Outsourcing fulfillment compounds an online retailer's coordination challenges, especially when the items in a single order are shipped from multiple locations. Bringing fulfillment in-house can improve on-time delivery performance, although the required investment in inventory and warehouses raises the asset intensity of the business.

Finally, the ease with which customers can communicate using e-mail and their ability to track order status on some websites (e.g., Dell's) have raised expectations regarding online merchants' responsiveness to order inquiries. Yet, most online retailers have performed poorly in these aspects of customer service (see **Exhibit 8**): during the 1999 holiday shopping season, for example, 10% of online shoppers reported problems with slow e-mail responses and 5% complained that they could not speak directly to a customer service representative.[44]

Community. Second, retailers should utilize the networking abilities of the web. In many categories, customers may form communities around the buying activity. For example, Garden.com, a site which sells garden supplies, has organized forums and chat groups about gardening. Its customers can interact with each other and with experts who can recommend specific products and explain how to use them.

Personalization. Third, online retailers should personalize their offerings to increase affinity for the site and thereby improve customer retention rates. They should be able to notify a customer through email of new products similar to items they have already purchased. They also should be able to give advice on what to purchase given a customer's shopping history. By "upselling" additional goods related to an initial purchase, sites can increase their average order size.

One form of personalization involves manipulating price to the site's advantage. For example, many first-time shoppers purchase small items from a website to measure how well the site performs; if satisfied, they are more likely to return to buy larger items. In fact, first sale revenue is generally between 10-30% of fourth sale revenue.[45] Ashford.com, an online jewelry retailer, reports that its repeat buyers spend twice as much per order as first time buyers.[46] When sites have an indication that they are dealing with a first-time visitor (because the visitor's PC has never before

---

[42] Alan T. Saracevic, "Hope for the Holidays," *Business2.0* (October 10, 2000): 150, citing Jupiter Communications.

[43] Boston Consulting Group, in association with the e-commerce trade organization Shop.org as reported in "Shopping Trips," *Business2.0* (May, 2000): 451.

[44] Alan T. Saracevic, "Hope for the Holidays," *Business2.0* (October 10, 2000): 150, citing Jupiter Communications.

[45] Forrester Research, " Retail Revs Up," Oct. 1997.

[46] Dennis K. Berman and Heather Green, "Cliff-hanger Christmas," *Business Week* (October 23, 2000): 31-37.

received the site's "cookie"[47]), they can dynamically serve a promotional offer on their home page that may appeal to the prospect.

Issues Facing Offline Incumbents

This section examines some of the strategic and organizational challenges confronting bricks-and-mortar retailers as they extend their business online. It reviews the advantages and disadvantages that incumbents face as they compete with "pure play" Internet retailers, then speculates as to how the competition between incumbents and pure plays may evolve.

Incumbents' Advantages

Among online retailers, only one publicly-traded pure play (FragranceNet.com) had reported profits as of late 2000, whereas there were many examples of offline incumbents whose online units were already profitable, including iQVC and Eddie Bauer.[48] In fact, a BCG/Shop.org study in late 1999 found that 72% of catalog companies that had moved online were profitable, compared to just 24% of the pure plays in their sample of 412 privately-held and publicly-traded online retailers (see **Exhibit 9**). This difference in profit performance may be explained by the considerable advantages that offline retailers bring to the Internet.

Branding and Customer Relationships. First, incumbents have a brand name that is firmly established, and relationships with offline customers who may be encouraged to buy online. For example, the Gap.com site is quite successful amidst a glut of online apparel retailers because its parent company has already built a strong reputation for quality and service.[49] A strong brand and existing customer relationships translate into lower marketing costs for incumbents compared to pure plays, which must build a brand from scratch. BCG reports that in 1999 the acquisition cost per new customer for multi-channel online retailers was only $12 (down from $22 in 1998), versus $82 for pure plays (up from $42 in 1998).[50] Incumbents may exploit their brand strength and access to offline customers through cross promotions, driving traffic to their website by offering coupons and displaying "dot com" signage on shopping bags and throughout their stores. An increasingly common tactic for incumbents is to locate computer kiosks in high traffic bricks-and-mortar retail stores, thereby exposing offline shoppers to their websites; 67% of such bricks-and-mortar incumbents planned to introduce such kiosks by year-end 2000.[51] Incumbents may also cross-promote in the other direction: exploiting their website to encourage online shoppers to visit their bricks-and-mortar outlets.

Supplier Relationships. Second, existing supplier relationships allow incumbents to build their online business at a lower cost. As noted above, larger retailers enjoy scale economies in procurement through volume discounts, by purchasing directly from manufacturers, and by securing co-op marketing funds from their suppliers. Offline retailers like Toys-R-Us have advantages in

---

[47] A cookie is a small piece of software code downloaded into a website user's computer by the website, which allows the website to identify the user and track her whenever she logs back into the site. Cookies could be used to avoid requiring users to reenter commonly requested information, such as user names and passwords or shipping addresses.

[48] David E. Bell, "Eddie Bauer," HBS Case: 500-034 and Jeffrey F. Rayport, Dickson L. Louie and Michelle Toth, "iQVC," HBS Case: 897-123, April 13, 1998.

[49] Louise Lee, "'Clicks and Mortar' at Gap.com," *Business Week* (October 18, 1999): 150-152, citing Forrester Research.

[50] BCG/Shop.org data found in "The Detail On E-Retail," *The Industry Standard* (May 8, 2000): 207.

[51] Seema Williams, "Mixing Bricks With Clicks," *Jupiter Communications* (June 2000).

procuring scarce merchandise for their online units—a critical capability in the hit-driven toy business—due to their clout with suppliers.[52]

Fulfillment and Customer Service Operations. Third, offline incumbents with catalog operations have existing warehouse and call center operations geared toward servicing individual customers. While bricks-and-mortar retailers often have warehouses, these facilities generally ship full pallet quantities to stores, not small shipments to individual households. The assets held by catalog retailers and their access to seasoned managers who can leverage these assets can translate into cost and performance advantages over other online retailers. BCG reports that in 1999, the average fulfillment cost per order for catalog retailers' online units was $10.30, versus $12.50 and $18.10 for pure plays and the online units of bricks-and-mortar retailers, respectively. Furthermore, the online units of catalog retailers shipped a higher percentage of orders on time, compared to other types of online retailers, and delivered order to consumers more quickly (see **Exhibit 10**).

Cross-Channel Delivery and Returns. Lastly, incumbents can offer consumers the convenience of picking up merchandise ordered online from a bricks-and-mortar store, or returning unsatisfactory merchandise purchased online to a store. Extending this advantage, Barnes & Noble has experimented with using its bricks-and-mortar stores as a base for same-day delivery of merchandise ordered online.[53]

Incumbents' Disadvantages

Incumbents face certain barriers as they move online (see **Exhibit 11**). First and foremost, they worry about the threat of cannibalization of their offline business. Is this a legitimate concern? Yes: assuming there is fixed cost leverage in their existing offline channel, then a shift in sales from the offline channel to the online unit will result in an overall reduction in profits, even if the online unit earns the same margins as the offline channel did before the shift in sales volume. According to one analyst, a 15% reduction in volume for a typical bricks-and-mortar retailer will reduce its operating margin from 5% to 0%[54].

One response to cannibalization is to simply embrace its inevitability: If other Internet retailers are going to capture your business anyway, wouldn't you rather self-cannibalize than fuel a competitor's growth? A second response is to ask: Is it possible to capture enough *upside* from new customers or increased sales to existing customers to compensate for the *downside* impact of cannibalization? Given the value added by online retailing, category expansion seems plausible, which might lead to more revenue. Also, as noted above, multi-channel retailers can use their websites to support their stores, and vice versa. For example, a recent survey by the National Retailing Federation indicates that people who surf a stores' internet site before going to the physical store spend 33% more than those that do not.[55]

In fact, there is ample evidence that customers who shop in multiple channels spend much more heavily than those who shop in a single channel. For example, Eddie Bauer reports that its customers who shop through all three of its channels (stores, catalog, and website) spend, in total, five times more than its "catalog-only" customers.[56] Staples reports similar results: its customers who

---

[52] Bernhard Warner, "How Culture Clash Sank the Toys "R" Us Deal," *Industry Standard,* August 30, 1999, p. 28.

[53] Jeanette Brown, "Barnes & Noble Joins the Dot-Com Speedy Delivery Stakes," *Business Week Online,* June 9, 2000.

[54] Michael De Kare, *e-Shock* (New York: Amacom, 1999): 11.

[55] Nora Macaluso, "E-Shopping Key to Retail Health," Commerce Times, 2000; Furthermore, according to Evie Black Dykema, "Online Retail's Ripple Effect," *Forrester Research* (September 2000), 55% of surveyed e-tailers said they did not know the percentage of their online sales that is incremental to offline volume; 15% said less than 20% of online sales are incremental; 14% said 20-50%; and 17% said more than 50 %of their online sales were incremental.

[56] K. Berman, "Cliff-hanger Christmas," *Business Week* (October 23, 2000): 30.

shop in three channels spend five times as much as customers who shop only in staples stores.[57] One might suppose that these are simply the retailer's most loyal customers, who might have spent the same amount even if multiple channels were not available. The experience of The Gap suggests otherwise. Tracking longitudinal data for individual customers, The Gap reports that 50% of its multichannel shoppers spend more now than they did when they shopped only in The Gap's bricks-and-mortar stores; the rest spend about the same amount as they did before.[58]

In addition to selling more goods to existing customers, offline retailers like Staples have targeted new customers through their Internet channel. In doing so, multichannel retailers must operate more like pure plays; they often invest heavily to build prospects' interest and encourage trial. To date, this strategy has been successful for Staples: the company reports that 70% of the sales by its online unit represent incremental volume that the company would not have realized prior to the launch of its online business.[59]

A second barrier confronting incumbents as they move online involves the very considerable challenge of coordinating offline and online activities. Legacy information systems and online systems must work in tandem; a consumer who uses L.L. Bean's website expects to be able to call a catalog customer service rep to check what size "Bean boots" she ordered two years ago. Also, coordinating pricing policies can be difficult. Some customers expect Internet retailers to charge lower prices, while others may demand that a company's bricks-and-mortar store match the lower price offered on the company's website.

Who Wins?

Pure plays claim to be more focused and flexible than incumbents, who often have been conflicted in their online strategies—worried about cannibalizing their core businesses or depressing their earnings and stock prices by investing too aggressively. Yet, pure plays are now constrained by less accommodating capital markets, and as noted above, incumbents have considerable advantages as they move online. A review of the twenty most heavily trafficked retailing websites in August 1999 (see **Exhibit 12**) quickly indicates that incumbents are well represented among online leaders: the list includes Sears, Barnes & Noble, J.C. Penney, Staples, Best Buy, JCrew, Old Navy and others. In fact, according to a BCG/shop.org study in late 1998, 59% of online shopping came from incumbent's sites.[60]

Not surprisingly, many startups and established retailers have begun linking up in order to leverage each other's expertise. Pure-plays want access to the purchasing leverage, brand and customer relationships, and distribution and customer service capabilities of offline retailers. Established companies, on the other hand, seek to jump start their efforts in an arena where they lack expertise. Examples include CVS's June 1999 purchase of Soma.com; Hollywood Video's purchase of Reel.com; and Petsmart's merger of its online operations with those of pure play Petjungle.

---

[57] Gary Putka, "E-Commerce: Roundtable..," *Wall Street Journal* (July 17, 2000): R52.

[58] Louise Lee, "'Clicks and Mortar' at Gap.com," *Business Week* (October 18, 1999): 150-152; QVC reports similar results; its TV buyers spent, on average 25% more after they move online according to Dennis K. Berman and Heather Green, "Cliff-hanger Christmas," *Business Week* (October 23, 2000): 31-38.

[59] Danielle Turnof Fox, "Company Update: Staples," *JP Morgan* (December 29, 1999): 8.

[60] Boston Consulting Group, "The State of Online Retailing," 1998.

Other Strategic Issues

"Shopping Bots"

Shopping bots such as MySimon.com and Dealtime are websites that employ software "spiders" to "crawl" across the Web, collecting information from multiple online retailers on their product pricing, features, and availability.[61] Shopping bots allow users to compare goods along several dimensions, but most frequently are employed to discover the cheapest price for a given product. Some industry observers believe that bots are revolutionary and will cause price wars between online retailers.[62]

Others industry analysts note that despite the ease of gathering pricing information online and the fact that 40% of consumers say they comparison shop before they buy online[63], pricing dispersion (i.e., the difference between the highest and lowest prices offered for a given item by different retailers) is actually *greater* on the Web than it is offline.[64] Furthermore, Amazon, while offering substantial discounts compared to bricks-and-mortar booksellers, has never had the lowest online prices, yet it has captured an 80% online market share. This suggests that online shoppers—like their offline counterparts—are willing to pay a premium for high quality customer service and for the security of dealing with an reputable retailer which will stand behind its brand.

Given these disparate views, online retailers face a difficult choice in deciding whether to cooperate with shopping bot sites. At one extreme, some bots allow retailers to pay for superior placement on lists that they generated in response to users' inquiries. At the other extreme, it is technically possible for a website to block access to a bot's "spiders." By doing so, a site reduces its exposure to comparison shopping, but also eliminates a potential source of sales referrals.

Disintermediation

Disintermediation occurs when manufacturers sell directly to consumers rather than through retailers. Disintermediation was expected to be the "biggest, baddest" impact of the Internet retailing revolution. To date, however, its impact has fallen short. Most manufacturers fear alienating their retailers by selling directly on the Web. In fact, more than 90% of manufacturers do not sell online.[65]

One example of failed disintermediation involves the online activities of blue-jeans manufacturer Levi Strauss. Levi's pulled the plug on its online retailing operations in 1999, just one year after it announced ambitious plans to sell directly to consumers. The reason: powerful retailers such as JC Penney's and Macy's had complained loudly and publicly. Alienating retailers and being preoccupied by its failed Internet strategy has apparently taken a toll on Levi's: the company has lost roughly 25% of the market share they once enjoyed.[66]

---

[61] Ken Cassar, "Shopping Bots," Jupiter Communications, May, 1998; Michael May, "As Bots Reach Adolescence…," Jupiter Communications, September 7, 1999; for a beginners explanation see (http://www.zdnet. com/zdhelp/stories/main/0,5594,903492,00.html).

[62] Jeffrey Kephart and Amy Greenwald, "When Bots Collide," *Harvard Business Review* (March-April 2000).

[63] Stacy Lawrence, "Window-Shopping," *The Industry Standard,* May 15, 2000.

[64] Erik Brynjolfsson and Michael D. Smith , "Frictionless Commerce?," *Management Science* (April 2000): 563-585; "Faster! Better! Cheaper?," *Business2.0* (April 2000): 376-378.

[65] Neil Weinberg, "Not.coms," *Forbes* (April 17, 2000): 424.

[66] "Levi's Internet Blues Keep Keepin On," *The Industry Standard* (November 15, 1999): 80.

Another example of a retailer deterring its suppliers from selling online involves Home Depot. The home building supplies and hardware chain has reportedly threatened its vendors that it will refuse to purchase from them if they launch e-commerce initiatives.[67]

Hybrid Business Models

Hybrid business models include combinations of online retailing with other Internet business models. For example, Garden.com might be considered a hybrid between a retailer and a content provider. The site included an online magazine with a rich array of articles of interest to gardeners. In theory, access to such information should have attracted visitors to Garden.com's site, who should have been inclined to spend more as they immersed themselves in their hobby. In practice, Garden.com, like many other online retailers, struggled to reach profitability. Facing difficulty raising funds to sustain its GBF strategy, the company closed its consumer operations in December of 2000.

Retailing/content provider hybrids like Garden.com can be difficult to manage for at least two reasons. First, they require mastery of diverse skills. The risk is that in trying to be both a retailer and a content site, a company will be great at neither business. Second, sourcing content can be expensive, and a retailer like Garden.com that operates an online magazine is almost certain to forfeit advertising from competing retailers—typically a major source of revenue for a content provider.

Another hybrid approach combines online retailing with the Internet access provider business model. For example, Kmart, in partnership with Yahoo!, provides free Internet access service under the brand name "Bluelight" (the name used in Kmart stores to announce special promotions). By managing the "start page" for 4 million Bluelight.com subscribers, Kmart can strengthen its relationship with these customers and encourage them to shop online.[68] Other large retailers have launched similar ventures, including RadioShack inking a deal with Microsoft and Circuit City forming a partnership with America Online.[69] These companies reason that if they can run their ISP businesses at or near breakeven, they will accrue significant strategic benefit from establishing closer relationships with their online customers.

---

[67] Katrina Brooker, " Awfully Nervous," *Fortune* (August 16, 1999): 28.

[68] Evie Black Dykema, "Online Retail's Ripple Effect," *Forrester Research* (September 2000).

[69] "March of the Marts," *Industry Standard,* December 16, 1999.

Exhibit 1 Online Shopping Statistics

	1998	1999	2000	2001	2002	2003
Total U.S. Online Shopping (billions)	$7.8	$14.9	$23.1	$34.6	$53.0	$78.0
Percentage Of U.S. Households Online	37.3%	44.0%	49.9%	54.8%	59.4%	63.4%
Percentage Of People Online Who Purchase	23%	29%	34%	40%	47%	54%
Annual Spending Per Online Buyer	$412	$518	$589	$668	$788	$919

Source: Adapted from Jupiter Communications, "Online Shopping Report," 2000.

Exhibit 2 U.S. E-Commerce Forecast By Category

	1998 (Online % Of Total Category)	2000 Online Sales	2000 (Online % Of Total Category)	2003 Online Sales	2003 (Online % Of Total Category)
Software	8.6%	$1.3	20.7%	$3.5	48.9%
PCs	11.1%	$5.2	24.3%	$10.2	40.4%
Air Travel	2.6%	$7.8	10.3%	$13.6	15.4%
Books	2.5%	$1.9	6.3%	$4.9	14.3%
Music	1.1%	$0.6	3.8%	$2.6	14.0%
Videos	0.4%	$0.3	3.0%	$1.1	10.3%
Toys	0.3%	$0.5	1.9%	$1.6	5.6%
Flowers	0.8%	$0.3	1.9%	$0.8	5.0%
Footwear	0.1%	$0.2	0.3%	$1.2	2.1%
Furniture	0.0%	$0.1	0.1%	$1.4	2.1%

Source: Adapted from "Metrics" section of *The Industry Standard* (August 7, 2000), citing Forrester Research Data.

Exhibit 3 Reasons For Not Purchasing Online

Reason	% Of Online Households That Did Not Purchase Because Of The Given Reason
Uncomfortable sending credit card data via the net	50%
Prefer to see the product first	41%
No credit card	37%
Not enough product information to make a decision	22%
Not confident with online merchants	20%
Can't talk to salesperson	17%

Source: Adapted from Ernst and Young, "Global Online Retailing," January, 2000, pg.20.

Exhibit 4 Cost Structures For An Online Bookseller At Maturity vs. A Bricks & Mortar Book Retailing Chain.

	XYZ.com	XYZ Superstore
Product Margin	28.0%	40.0%
Freight In	-2.0%	-1.0%
Credit Card Charges	-2.5%	-1.0%
Shipping Revenue, Net	1.5%	0.0%
Gross Margin	**25.0%**	**38.0%**
Store Occupancy Costs		10.0%
Store Operating Expense		14.0%
Distribution and Customer Service	12.0%	
R & D/Tech Costs	3.0%	
Gross Advertising	7.0%	4.0%
Co-op reimbursement/Ad Sales	-3.0%	-2.0%
G&A	1.0%	3.0%
Total Operating Costs	**20.0%**	**29.0%**
Operating Margin	**5.0%**	**9.0%**

Source: Adapted from Banc of America, "Thinking Outside The Big 'Box'," August, 1999.

Exhibit 5 Profit And Loss Statements For A Sample Of Online Retailers

$ In Millions, % Of Revenue	1998		1999		2000E		2001E	
Amazon								
Revenue			$1,639.8		$2,756.8		$4,200.0	
Cost of Revenue			$1,349.2	82.3%	$2,125.4	77.1%	$3,203.7	76.3%
Gross Margin			$290.6	17.7%	$631.3	22.9%	$995.4	23.7%
Sales & Marketing			$412.6	25.2%	$583.9	21.2%	$664.0	15.8%
Product Development			$160.0	9.8%	$268.4	9.7%	$267.7	6.4%
General & Administrative			$70.4	4.3%	$111.0	4.0%	$118.5	2.8%
Operating Income			-$352.4	-21.5%	-$331.9	-12.0%	$53.9	1.3%
eToys								
Revenue	$30.0		$151.0		$353.3			
Cost of Revenue	$24.2	80.1%	$122.0	80.8%	$275.4	78.0%		
Gross Margin	$5.7	19.1%	$29.1	19.2%	$78.1	22.1%		
Sales & Marketing	$20.7	69.3%	$120.4	79.7%	$150.6	42.6%		
Product Development	$3.6	12.0%	$43.4	28.7%	$64.5	18.3%		
General & Administrative	$4.6	15.3%	$16.9	11.2%	$32.4	9.2%		
Operating Income	-$23.2	-75.6%	-$151.6	-98.1%	-$169.4	-47.9%		
PlanetRx								
Revenue			$9.0		$41.8		$60.0	
Cost of Revenue			$7.6	84.4%	$35.6	85.2%	$51.0	85.0%
Gross Margin			$1.4	15.7%	$6.2	14.8%	$9.0	15.0%
Sales & Marketing			$55.2	613.2%	$75	179.4%	$65.0	108.3%
Product Development			$12.5	143.9%	$25.4	60.8%	$31.0	51.7%
General & Administrative			$6.5	71.8%	$10.5	25.1%	$12.0	20.0%
Operating Income			-$73.2	-813.2%	$104.7	-250.5%	-$99.0	-165.0%

Source: Adapted from Goldman Sachs Global Equity Research, "Internet Industry Report," October 6, 2000.

Exhibit 6 Customer Acquisition Costs, Sales Per Customer

	1999	2000 (2Q)
Customer Acquisition Costs		
Amazon	$19	$17
Ashford	$309	$253
Barnes & Noble.com	$29	$25
eToys	$55	$72
Sales Per Customer		
Amazon	$97	$26
Ashford	$463	$108
Barnes & Noble.com	$49	$12
eToys	$79	$12

Note that "Sales Per Customer" for 1999 reflects a spending over a full year, so it is not directly comparable to spending in the second quarter of 2000

Source: Adapted from Goldman Sachs, "Path to Profitability Monitor," October 25, 2000.

Exhibit 7 Problems Experienced By Online Shoppers During 1999 Holiday Season

Problem	% of Shoppers who experienced the problem
Product was out of stock	64%
Product was not delivered on time	40%
Shipping cost was too high	38%
Difficulty in connecting to or downloading from Website	36%
No confirmation or status report on purchase	28%
Selections were limited	27%
Web site was too difficult to navigate	26%
Web site didn't provide info needed to make purchase	25%
Prices were not competitive	22%
Web site did not offer enough gift ideas	16%

Note that the people surveyed were those who had at least encountered one problem.

Source: Adapted from John Sterlicchi and Barbara Gengler, "E-Tailers' Costly Lessons," *Upside* (June 2000) citing a survey by Anderson Consulting.

Exhibit 8 Online Purchase Performance Statistics

Tracking area:	% of Survey Respondents
Order Confirmations	
Incorrect/contained misinformation	1%
No order confirmation was received	12%
Sent, but didn't include all necessary information	28%
Included extra beneficial information	14%
Met standards	45%
Shipping Confirmations	
Incorrect/contained misinformation	4%
No shipping confirmation was received	39%
Sent, but didn't include all necessary information	17%
Included extra beneficial information	9%
Met standards	31%
Not Able To Access Order Info. Via Telephone	
More than 24 hours after checkout	2%
Immediately after checkout	60%
1-24 hours after checkout	11%
Email Queries Regarding Purchases	
No response	18%
Response within an hour	7%
Response in 1-6 hours	21%

Source: Adapted from Electron Economy, "Order Disorder," *Business2.0* (October 10, 2000).

Exhibit 9 Profitability Of Online Retailers

	Catalog-based, multichannel	Store-based, multichannel	Pure-plays
Overall E-commerce sites	72%	38%	24%
Retailers online for more than one year	79%	50%	38%

Source: Adapted from "Metrics" section, "Catalogers Wise To The Net," *The Industry Standard* (May 29, 2000) citing data from Boston Consulting Group/shop.org study.

Exhibit 10 Fulfillment Costs

	Fulfillment cost per order	Order fulfillment time	Orders fulfilled on time
All	$11.80	1.7 days	88%
Pure play	$12.50	1.8 days	86%
Multi-channel (catalog based)	$10.30	1.5 days	91%
Multi-channel (store-based)	$18.10	1.9 days	86%

Source: Adapted from April 1999 Boston Consulting Group/shop.org "The State of Online Retailing 3.0."

Exhibit 11 Reasons For Bricks-and-Mortar Retailers Not Selling Online To Consumers

Reason	Percentage of people surveyed
Conflicts with our investments in physical stores	67%
Lack necessary technology infrastructure	67%
Lack necessary distribution network	50%
Don't believe investment is worth the expected return	33%
Product not appropriate for online sales	17%
Don't believe consumers will buy our products online	17%
Legal/regulatory reasons	9%
Other	9%

Note that those surveyed do not sell through the web and do not plan to.

Source: Adapted from Ernst and Young, "Internet Shopping Study," 1999, pg.20.

Exhibit 12 Top 20 Retailers Among U.S. Home Users, August 2000

Rank	Web Site	Unique Visitors (000)	Overall Reach (%)	Projected Buyers (000)	Buy Rate (%)
1	Amazon.com	18,998	22.4	1,607	8.5
2	Ticketmaster.com	5,396	6.4	595	11.0
3	Buy.com	3,568	4.2	466	13.1
4	Cdnow.com	7,297	8.6	441	6.0
5	Sears.com	4,075	4.8	359	8.8
6	Barnesandnoble.com	6,322	7.5	358	5.7
7	Jcpenney.com	4,293	5.1	351	8.2
8	Real.com	13,457	15.9	305	2.3
9	Drugstore.com	1,674	2.0	240	14.4
10	Pets.com	2,048	2.4	213	10.4
11	Planetrx.com	2,834	3.3	208	7.3
12	More.com	1,319	1.6	146	11.1
13	Half.com	6,770	8.0	146	2.2
14	Staples.com	1,825	2.2	140	7.7
15	EToys.com	1,224	1.4	138	11.3
16	Bestbuy.com	3,393	4.0	135	4.0
17	Office.com	926	1.1	130	14.1
18	Jcrew.com	1,131	1.3	128	11.3
19	Gateway.com	2,689	3.2	124	4.6
20	Oldnavy.com	2,451	2.9	119	4.9

Source: Adapted from PC Data Online survey data cited in September 13, 2000 press release (http://www.pcdataonline.com/press/pcdo091300.asp)