# The Dot.com Retail Failures of 2000: Were There Any Winners?

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*In the year 2000, several dot.com retailers filed for bankruptcy, shut down their operations, or faced the risk of their stock being delisted on the stock market. But did any dot.com retailer do it right? Were there any winners? If yes, who are these winners? What is the product and firm profile of these winners? What lesson, if any, can be learned from these winners and losers? This article addresses these questions based on a study of 48 dot.com retailers, conducted in December 2000. The study identified 1-800contacts.com as the sole winner, using two performance indicators: percentage change in stock price since the initial public offering and stock options underwater. Based on a proposed conceptual framework of product and firm characteristics, the profile of 1-800contacts.com is compared with the hypothesized winner, Amazon.com, and other dot.com retailers. Implications of the study and limitations and opportunities for future research are discussed.*

The year 2000 was a crucial year for dot.com retailers, starting with much promise as market capitalization for some of these firms exceeded those of established companies. But spring 2000 brought a stock market correction. Soon after, venture capitalists and other financiers, who only months before had shoveled cash the dot.com's way, began demanding profits. Many overnight successes became overblown has-beens. Pets.com, Garden.com, ValueAmerica.com, and Living.com—the list went on. In fact, in its first issue of the year 2001, *Fortune* magazine published "In Memoriam" for the 135 dot.com firms that went bankrupt or shut down operations in 2000 in an article titled "Dot-com Deathwatch: Welcome to the Valley of the Damned.com" (2001).

The popular press offered a number of reasons for the failure of dot.com firms. These reasons included venture capitalists' overenthusiasm for Internet technology, the lack of a viable business model, questionable profit potential, high customer acquisition costs, lack of methodologies for assessing the market value of the dot.com firms, and the lack of management expertise and experience in the dot.com management teams ("From Dot.Com to Dot-Bomb" 2000; "How Much Are Your Eyeballs Worth?" 2000; "It's the Business Model" 2001).

Despite the massacre of dot.com firms in 2000, several interesting questions remain: did any of the firms do it right? Are there any winners? If yes, who are these winners? What is the product and firm profile of these winners? What lessons, if any, can be learned from these winners and losers?

In December 2000, we conducted a study to answer the above questions. The implementation of the study required us to focus on the following steps:

(a) Given the divergence of the product and firm characteristics of dot.coms, what should be the scope of our study?
(b) How do we define winners?
(c) Can we propose a conceptual framework to hypothesize the possible product and firm profile of winners?
(d) Does the hypothesized profile match reality?

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As explained in the following section, we limited the scope of our study to dot.com retailers. We collected data on 48 public dot.com retailers from secondary data sources. This section also justifies the definition of a winner based on two stock market performance measures—percentage drop in stock price since the initial public offering (IPO) and stock options underwater. On the basis of this performance metric, we identify 1-800contacts.com as the sole winner in 2000. The appendix includes a brief description of this company.

The section titled "Conceptual Framework" proposes six propositions to profile the winners. Because of the information and transaction efficiencies offered by online retailing to customers, as well as the important role played by offline retailing expertise (e.g., bricks-and-mortar, direct marketer) in the online world, we propose that well-performing dot.com retailers are likely to be firms that offer (1) digital goods as opposed to physical products, (2) search goods as opposed to experiential goods, (3) existing products as opposed to new-to-the-world products, and (4) customization of products. Winners are also likely to have (5) offline expertise and (6) a relatively larger number of alliances.

The section titled "Profile of the Winner" explains, contrary to our expectations, that three of the above six propositions (Propositions 1, 4, and 6) do not describe 1-800contacts.com. The last section discusses the implications of our study, followed by a discussion of the limitations and opportunities for future research.

## DOT.COM RETAILERS

To address our research questions, we decided to focus on dot.com retailers. This decision was based on the following three strategic and practical reasons.

First, predictions of the Internet retail sector in 2000 indicated that this sector was expected to reach $170 billion in 2003 (http://www.gartnergroup.com). Given the considerable hype and attention to the World Wide Web and to retailing on the Web, this sector has received substantial backing from venture capitalists and investors. Consequently, dot.com retailers have come under scrutiny for delivering customer and shareholder value (Amit and Zott 2001; Varianini and Vaturi 2000).

Second, Internet technologies have significantly influenced not only online retailing practices but also practices in the offline retail environment. The major impact of Internet technologies over the next few years was expected to be on offline retailers ("Will Wal-Mart.com Get It Right" 2000). Thus, the results of this study should be of interest to traditional retailers that are integrating online retailing operations with their existing offline operations and that expect the World Wide Web to have an enduring impact on their future operations.

Third, despite the emergence of dot.com firms in a number of other sectors in the 1990s, business-to-consumer markets served by dot.com retailers constituted the first set of dot.coms that went public. Thus, it was feasible to collect data on dot.com retailers from various public data sources.

### Performance Criteria for Winners

One of the major reasons cited for the failure of dot.com retailers in 2000 is their questionable profit potential ("How Much Are Your Eyeballs Worth?" 2000). In fact, the following quote from Jeff Bezos, CEO, Amazon.com ("Payoff Still Elusive" 1997), probably best reflected the mind-set of dot.com stakeholders prior to the year 2000:

> We are not profitable. We could be. It would be the easiest thing in the world to be profitable. It would also be the dumbest. We are taking what might be profits and reinvesting them in the future of the business. It would literally be the stupidest decision any management team could make to make Amazon.com profitable right now. (P. 17)

Because most of the dot.com retailers were not profitable from an accounting point of view, this precluded us from using traditional performance metrics, such as return on assets, return on sales, and so on, which are used to examine relative business performance and bankruptcies (Buzzell and Gale 1987; Sharma and Mahajan 1980).

Our analysis of press releases and discussions with managers in dot.com retailers and venture capital firms indicated that a key metric for the performance of dot.com retailers was the stock price of the firm since the IPO. The importance of this metric is understandable because venture capitalist firms primarily funded a large number, if not most dot.com retailers. Their primary interest was in managing the upward movement of the prices of IPO-ed dot.com retailers and cashing out of their investment positions at a desirable share price relative to their buy-in price. Another reason for the importance of the stock price as a performance metric is that a firm runs the risk of being delisted by the stock exchange if its stock traded for less than $1.00 for 30 consecutive days. According to Nasdaq rules, any company listed on the bourse was delisted if its share price fell below $1 for 30 consecutive business days under Marketplace Rule 4450(a)(5).[1]

In addition to the stock price of the dot.com retailers, another important metric related to the stock price of the firm is the value of its stock options that were issued to the employees. Managers in dot.com firms were compensated not only through salary and perquisites but also through the issue of stock options in the firm. An employee stock option is simply a right to buy a given amount of company stock at a given price for a given period of time. Employees do not hold the stock until they "exercise" the option and buy it, whereupon they frequently sell the stock immediately to cash in on its rise in value above the price at which they acquired the stock. These employee stock options work well so long as the prices of the shares of the company are on an upward trend but run into trouble when the share prices of the firm drop. As the share prices of the firm drop, the value of the stock option to the employee declines. When the price of the stock drops lower than the price at which the stock option was issued to the employee, then the stock option is said to be underwater because the employee has lost the investment in the stock. In the case of dot.com retailers, given their falling stock prices, the percentage of employee stock options underwater emerged as an important performance metric (Corrado, Jordan, Miller, and Stansfield 2001). Although the two performance metrics are somewhat correlated, these two measures are distinct as the percentage of stock options underwater is a function not only of the prevailing stock price but also the average price at which the stock options were issued to the firm's employees.

## Identification of Winners

We identified 48 publicly listed dot.com retailers that were listed on the Internet Stock Index published by the Wall Street Research Net (http://www.wsrn.com). We excluded business-to-consumer and consumer-to-consumer marketplaces such as e-bay.com and yahoo.com because the revenue models for electronic market places were different from those of online retailers. In this regard, we note that because of our focus on dot.com retailers that were a part of the Internet Stock Index, the sample does not include offline retailers, including direct marketer firms (e.g., Land's End, J. Crew, and L. L. Bean) and bricks-and-mortar stores (e.g., Wal-Mart) that had incorporated online retailing into their operations or had set up separate online divisions (e.g., K-Mart, which set up www.bluelight.com). We collected detailed data from several sources, including IPO prospectuses, company annual reports, observation of company Web sites, Web site ratings from third-party online retailer rating services (e.g., Gomez.com and BizRate.com), Hoovers.com, and the SEC's EDGAR database.

The 48 firms in our sample are listed in Table 1. The first 11 firms in Table 1 represent the dot.com retailers in our sample with offline experience. The offline experience could be a direct marketing operation (e.g., 1-800contacts.com) or bricks-and-mortar store (e.g., Barnes and Noble). Details of the dates of incorporation and the IPOs of the different dot.com retailers are given in Table 2. We note that most of these companies were incorporated in the past 5 years, and 73% of the IPOs took place in 1999, just months before the stock market correction in 2000.

**TABLE 1**
**Firms in Sample**

| *Number* | *TICKER* | *Name* | *Product Category* |
|---|---|---|---|
| 1 | CTAC | 1-800contacts.com | Contact lenses |
| 2 | BNBN | BN.com | Books |
| 3 | TMCS | TicketMaster Online Cty Srch | Ticketing service |
| 4 | TVLY | Travelocity.com | Travel |
| 5 | ET | etrade | Financial services |
| 6 | CTIX | Cheap Tickets Inc. | Travel |
| 7 | FLWS | Flowers.com | Flowers |
| 8 | EFTD | FTD.com | Flowers |
| 9 | ZANY | ZanyBrainy.com | Toys |
| 10 | EGGS | Egghead.com Inc. | Computer products |
| 11 | VSHP | VitaminShoppe.com Inc. | Drugs |
| 12 | IFLY | 800 Travel Systems | Travel |
| 13 | ALOY | Alloy Online Inc. | Apparel |
| 14 | AMZN | Amazon.com Inc. | Books |
| 15 | ASFD | Ashford.com Inc. | Luxury goods |
| 16 | ADBL | Audible Inc. | Digital music |
| 17 | AHWY | Audiohighway.com | Digital music |
| 18 | BYND | Beyond.com Corp. | Computer products |
| 19 | BGST | Bigstar Entertainment Corp. | Videos |
| 20 | BFLY | Bluefly Inc. | Online department store |
| 21 | COOL | Cyberian Outpost Inc. | Computer products |
| 22 | DSCM | Drugstore.com Inc. | Drugs |
| 23 | EGRT | E-Greetings.com Inc. | Electronic greetings |
| 24 | EELN | eloan.com | Financial services |
| 25 | ESTM | E-stamp Corp. | Stamps |
| 26 | ETYS | eToys Inc. | Toys |
| 27 | EXPE | Expedia Inc. | Travel |
| 28 | FASH | Fashionmall.com Inc. | Apparel |
| 29 | FATB | Fatbrain.com Inc. | Computer products |
| 30 | FOGD | Fogdog.com | Apparel |
| 31 | GDEN | Garden.com | Garden supplies |
| 32 | IGOC | igo.com | Computer products |
| 33 | INSW | Insweb Corp. | Insurance |
| 34 | MDCM | Mortgage.com | Mortgage |
| 35 | MTHR | MotherNature.com | Drugs |
| 36 | HITS | MusicMaker.com Inc. | Digital music |
| 37 | PPOD | Peapod Inc. | Groceries |
| 38 | IPET | Pets.com | Pet supplies |
| 39 | PLRX | PlanetRx.com Inc. | Drugs |
| 40 | PCLN | Priceline.com Inc. | Reverse auctions |
| 41 | SKDS | Smarterkids.com Inc. | Toys and kids' products |
| 42 | STMP | Stamps | Stamps |
| 43 | SLNEE | Streamline.com | Computer products |
| 44 | TIXX | Tickets.com Inc. | Travel |
| 45 | TNOW | Travelnow.com | Travel |
| 46 | VUSQE | ValueAmerica.com | Computer products |
| 47 | VSTY | Varsity Group Inc. | College market supplies |
| 48 | WBVN | Webvan Group | Groceries |

NOTE: The first 11 firms are online retailers with offline experience.

Data for the stock performance were tracked and collected since the time of the IPO until Thursday, December 7, 2000, the end of the fall 2000 academic semester.

Figure 1 summarizes the stock performance data based on the two performance metrics, percentage change in the

**TABLE 2**
**Incorporation Date Versus Initial Public Offering (IPO) Date for Dot.com Retailers in the Sample**

| | *IPO Date* | | | | |
|---|---|---|---|---|---|
| *Incorporation Date* | *1997* | *1998* | *1999* | *2000* | *Total* |
| 1989 | 1 | | | | 1 |
| 1990 | | | | | |
| 1991 | | | 1 | | 1 |
| 1992 | | | | | |
| 1993 | | | 1 | | 1 |
| 1994 | | 1 | 3 | | 4 |
| 1995 | 2 | 2 | 10 | | 14 |
| 1996 | | 2 | 5 | | 7 |
| 1997 | | 2 | 9 | 1 | 12 |
| 1998 | | | 4 | 1 | 5 |
| 1999 | | | 2 | 1 | 3 |
| Total | 3 | 7 | 35 | 3 | 48 |

stock price since the IPO (positive or negative) and percentage stock options underwater.[2] From Figure 1, we note that 1-800contacts.com is the only firm that showed an *increase* in its stock price since the IPO (105% since the IPO on February 2, 1998). None of its stock options were underwater. To allow for ease of presentation, we summarize the results of Figure 1 in a 2 × 2 matrix with percentage change in the stock price since the IPO (positive or negative) and percentage stock options underwater (yes/no) in Figure 2. From Figure 2, we note the following salient findings:

- 1-800contacts.com is the only firm that emerges a winner on both dimensions of percentage change in stock price since IPO and percentage stock options underwater.
- Amazon.com had no stock options underwater, but the stock price was below the IPO price (9% since the IPO on May 15, 1997).
- Among the other 46 dot.com retailers, 6 had filed for bankruptcy. Furthermore, 15 dot.com retailers were at risk of being delisted because their stock price was less than $1 for 30 consecutive days.

The drop in the share price since the IPO of four selected dot.com retailers from our sample is shown in Figure 3. Figures 1, 2, and 3 clearly suggest that the stock market was brutal to the dot.com retailers in 2000. Indeed, there appears to be only one winner along the dimensions of stock price drop and percentage stock options—performance metrics considered important in the stock market—1-800contacts.com. Hence, an important question that we address is the following: why did the stock market reward 1-800contacts.com?[3]

## CONCEPTUAL FRAMEWORK

Figure 4 describes the conceptual framework hypothesizing the relationship between the performance and four product-related characteristics and two firm characteristics. Table 3 further elaborates on these six product and firm characteristics, with specific examples of the dot.com retailers from our sample in Table 1 that illustrate these characteristics. In the following paragraphs, we develop specific propositions related to these six characteristics. We use these propositions to develop the profile of the winning dot.com retailer. This profile is summarized in Table 4.

### Product-Related Characteristics

As summarized in Figure 4, we consider the following four product-related characteristics: (a) digital versus physical, (b) new-to-the-world versus existing products, (c) search versus experience goods, and (d) product customization.

*Digital versus physical products*. Digital products are those products that can be digitized (converted into 0s and 1s) and can be generated, stored, and transmitted electronically. Examples of digital products include music, information services, news, and travel and reservation services. Even though travel and hotels have a physical component (i.e., air travel, hotel rooms), we consider these products to be digital because the physical aspect of the products is identical whether the product is purchased offline or online.

Digital products are well suited for online sales. The online medium provides informational efficiency as the Web can be used to collect and analyze information about digital products. In the case of digital products, the consumer can get all the information about the product by merely searching on the Web, resulting in high information efficiency. In addition, the search and other processing capabilities of the Web interface allow the consumer the option of searching for different options, if the consumer is interested. For digital products, the online medium also offers high transactional efficiency as the entire transaction can be completed online without the hassle of physical fulfillment. For example, in the case of travel companies that make online hotel and travel reservations, the offline counterpart (ticketing through a travel agent) is associated with higher time costs and the costs of transacting with a travel agent who, in turn, has to connect to a computer system. On the other hand, buying physical products online is also characterized by informational and transactional efficiencies online, but the fulfillment of the physical product (e.g., shipping the book to the customer) has to necessarily be done offline. Given this background, dot.com retailers selling digital products are likely to

**FIGURE 1**
**Percentage Stock Options Underwater Versus Percentage Change in Stock Price Since Initial Public Offering (IPO)**

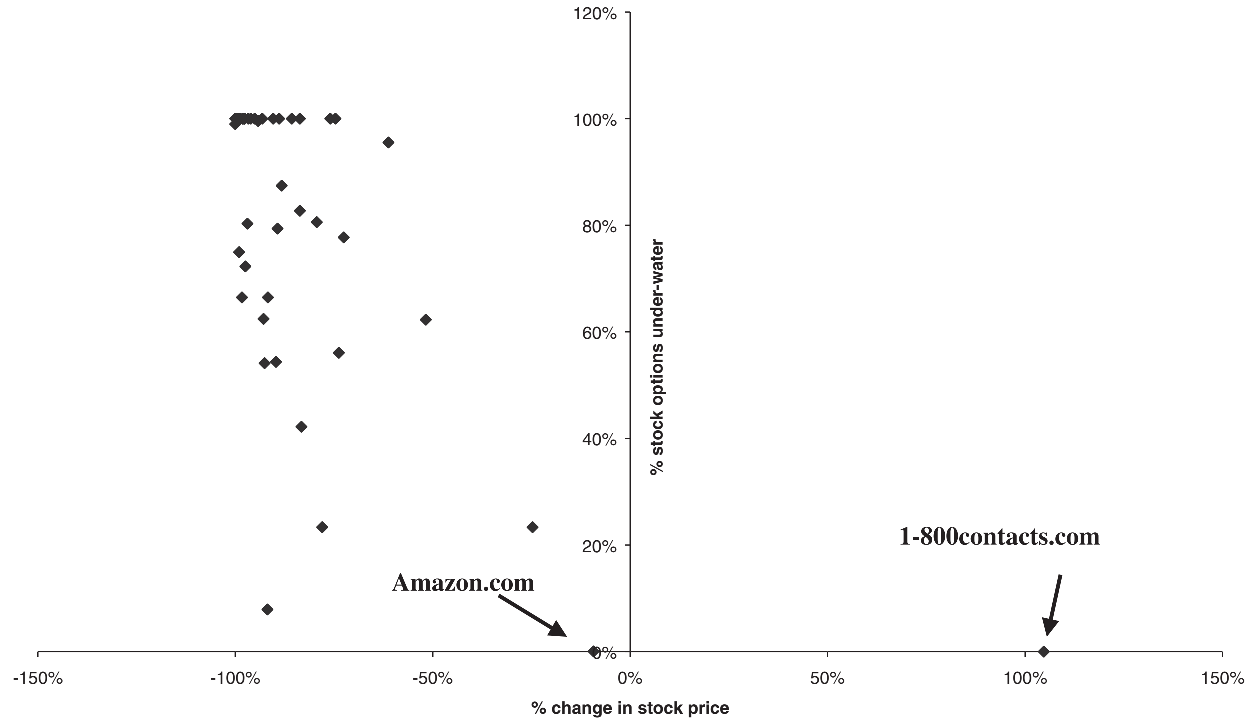
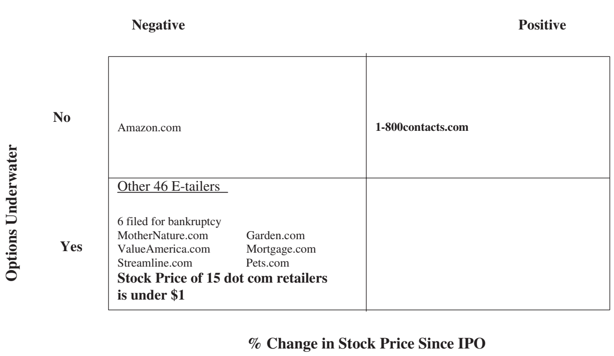



**FIGURE 2**
**Stock Market Performance of Dot.com Retailers**



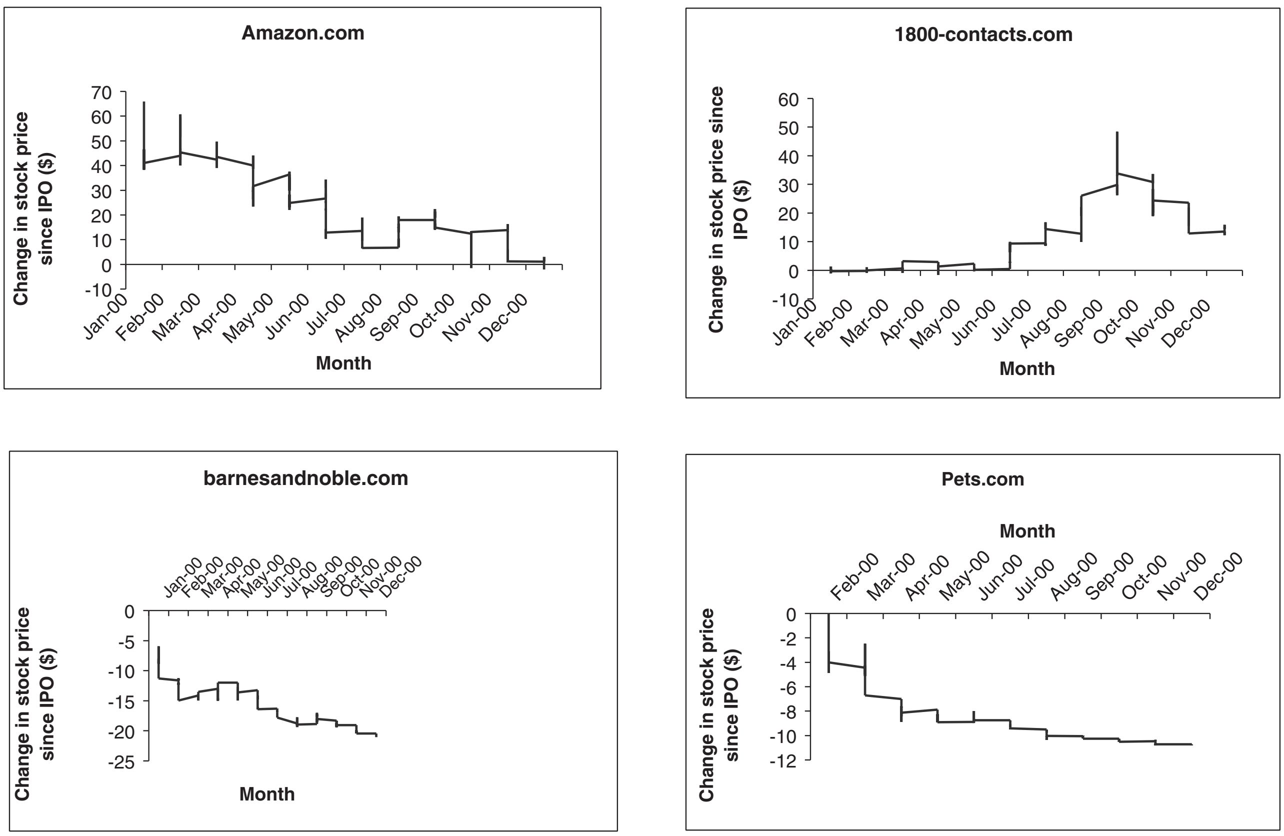

NOTE: IPO = initial public offering.

perform better than dot.com retailers selling physical products.

However, there may be two instances when digital products may not perform well for dot.com retailers: (1) when the product is a new-to-the-world product and/or (2) when the product is a digital entertainment product. The new-to-the-world products are intrinsically underdeveloped products that may require much more developmental work in terms of both product and market development. Thus, new-to-the-world digital products may be subject to problems common to new-to-the-world products in the offline world.

In the case of new-to-the-world products such as digital music and video downloads, the technology for downloading the music and the video required very high bandwidth that was not available to a large number of customers. Hence, while the Internet technology on the supply side for digital entertainment products was positioned for prepurchase, product trial, sale, and fulfillment, the technology at the consumers' end was not ready for these transactions. In addition to the bandwidth problems described above, producers and sellers of digital entertainment products faced problems in generating revenues for the product. One unintended consequence of the Internet has been the widespread availability of free information and digital content. Therefore, in the Internet marketspace, customers are being led to believe that information and digital content are "free products." We surmise that the Internet, along with other peer-to-peer technologi-

**FIGURE 3**
**Change in the Stock Price of Selected Dot.com Retailers Since Initial Public Offering (IPO)**




cal developments (e.g., Napster, Gnutella), has led consumers to conclude that digital products are "free." Hence, dot.com retailers selling digital entertainment products not only have market acceptance problems faced by new-to-the-world products, but they also have difficulties generating revenue from their customers. Hence, dot.com retailers that market digital entertainment products, whose revenue model is generated by payment by the user, are not performing well. Hence, we suggest the following:

*Proposition 1a:* Dot.com retailers that offer only digital information goods that can be delivered digitally (e.g., airline tickets, research reports) are likely to perform better than dot.com retailers that offer physical products that require physical delivery.

*Proposition 1b:* Dot.com retailers that sell digital entertainment products are likely to perform worse than dot.com retailers that sell digital information products.

*Proposition 2:* Dot.com retailers that sell new-to-the-world products are likely to perform worse than dot.com retailers that sell existing products.

*Search and experiential goods*. Nelson (1970) has defined two types of goods that are distinct in terms of the consumer evaluation processes: search goods and experience goods. *Search goods* are goods that can be fully evaluated prior to purchase (e.g., an article from a news service). With such goods, the quality of the goods can be easily determined by the mere description of the product. Hence, with search goods, all the information pertinent to the good is obtainable online, leading to greater information and transaction efficiencies.

*Experience goods*, on the other hand, have to first be purchased and consumed (i.e., experience the good) before the consumer is able to evaluate the quality of the good. With experience goods, it is therefore difficult to be certain about the quality of the product by browsing a company's Web site. In fact, past research on search costs and their effects on customer purchase processes suggests that branding and prior experience with the product play an important role in experience goods. Therefore, we would expect that dot.com retailers in search goods (e.g., travel,

**TABLE 3**
**Product and Firm Characteristics of Dot.com Retailers**

| *Characteristic* | *Characteristic Value* | *Examples* |
|---|---|---|
| Product characteristics | | |
| Product type | Physical versus digital | Amazon.com versus Travelocity.com |
| Product properties | Search versus experiential | BarnesandNoble.com versus Fashionmall.com |
| Product newness | New-to-the-world versus existing | MusicMaker.com versus Amazon.com |
| Product customization | Yes or no | Priceline.com versus TicketMaster.com |
| Firm characteristics | | |
| Offline experience | Yes versus no | BarnesandNoble.com versus Etoys.com |
| Number of alliances | Zero to any number | 1-800contacts.com (no partners) versus eloan.com (40 partners) |

**TABLE 4**
**Profile of the Winner**

| *Characteristic* | *Hypothesized Winner* | *Actual Winner (1-800contacts.com)* |
|---|---|---|
| Product characteristic | | |
| Product type | Digital | Physical |
| Product properties | Search | Search |
| Product newness | Existing | Existing |
| Product customization | Yes | No |
| Firm characteristics | | |
| Offline experience | Yes | Yes |
| Number of alliances | High | None |

hotels, contact lenses) should perform better than dot.com retailers in experience goods (e.g., clothing, fine luxury goods). Hence,

*Proposition 3:* Dot.com retailers that offer search goods are likely to perform better than dot.com retailers that offer experiential goods.

*Customization of goods*. Customization can offer significant benefits both to customers and the firm offering customization (Wind and Mahajan 2000). From the customers' perspective, the real benefit is the ability to find and/or design products and services that meet their needs. For example, experimental evidence (Huffman and Kahn 1998) suggests that customers were more satisfied when they were allowed to specify their within-attribute preferences in selecting products. For firms that adopt a customization strategy, there could be several benefits. Among the significant benefits to the firm are the substantial reductions in inventory, the opportunity to enhance customer loyalty, and the avoidance of commoditization pitfalls. For example, firms (e.g., Dell) that use a build-to-order system had much lower inventory to sales than firms (e.g., Compaq) that use a make-and-sell system (Wind and Rangaswamy 1999). Hence, we would expect that customized products would do better than standardized products in dot.com retailing. Therefore,

*Proposition 4:* Dot.com retailers that offer customized goods are likely to perform better than dot.com retailers that offer standardized goods.

### Firm Characteristics

Following Figure 4, we consider two firm characteristics of dot.com retailers: their offline experience and the number of alliances.

*Offline experience*. Some dot.com retailers were able to access experience in the offline world either by virtue of their offline experience (e.g., direct marketing operations, bricks-and-mortar stores) or through strategic alliances with retail partners in managing their online retail operations. Dot.com retailers with offline experience are likely to perform better than pure-play dot.coms for a number of reasons: (1) prior knowledge about the retailing domain; (2) existing market-based assets, including brands and customer relationships that they can leverage in the Internet marketspace; and (3) larger market coverage because they are not dependent only on online customers for their revenues.

In addition, trust may take on a heightened importance in electronic markets because of the spatial separation between buyers and sellers imposed by the medium (Brynjolfsson and Smith 2000). Recent studies suggest that there are a variety of ways in which online retailers may be able to signal trust in an online world, including online communities (Balasubramanian and Mahajan 2001): links from trusted Web sites, provision of unbiased product information such as customer feedback data (Urban, Sultan, and Qualls 2000), and the use of existing conventional world brand names (Shankar, Rangaswamy, and Pusateri 1999). Gulati and Garino (2000) discussed the benefits of integrating bricks and mortar with online retailing operations and argued for the optimal integration of online and offline retailing strategies for retailers, ranging from a high degree of separation (e.g., spin-off) to a high degree of integration (e.g., in-house division). Specifically, for online retailers in physical products (e.g., books, flowers, etc.), the fulfillment of the product has to take place offline and requires substantial investments in logistic systems. Thus,

*Proposition 5:* Dot.com retailers with offline experience are likely to perform better than pure-play dot.com retailers.

*Alliance partners*. Recent research points to the important role of networks and alliances in the digital economy due to increased transaction efficiencies for customers and the benefits of wider offerings to the company (Ernest and Halevy 2000). Hence, an increasing number of alliance partners should result in better performance of the dot.com retailers as the early focus in the online space was on leveraging the customer relationships of alliance partners. Indeed, Shankar (2000) found that alliance announcements were a dominant driver of shareholder value. Hence,

*Proposition 6:* Dot.com retailers that perform well are likely to have more alliance partners than dot.com retailers that do not perform well.

Based on the above six propositions, we hypothesize that the winner is likely to be a dot.com retailer that offers (1) a digital product, (2) an existing product, (3) a search good, and (4) product customization. In terms of its firm characteristics, the winner is likely to have (5) offline experience and (6) a higher number of alliances.

## PROFILE OF THE WINNER

Given the arguments made in the last section regarding the possible product and firm characteristics of winners, an interesting question is, What happened at the end of the year 2000? Small sample size (e.g., only one winner) and limited dispersion in the drop of stock price since the IPO across firms did not permit meaningful aggregate statistical analyses. Hence, we generate insights by qualitatively analyzing the data.

Table 4 provides a comparison between the hypothesized winner and 1-800contacts.com, the actual winner. As highlighted in Table 4, the profile of 1-800contacts.com supports three of the six hypotheses—it offers a search good, it has an existing product, and it has offline experience. It does not support the other three hypotheses—it does not offer digital products and product customization, and it has no alliances. In fact, 1-800contacts.com is a dot.com retailer with offline experience that has used the Internet predominately as a tool to increase its market reach.[4] None of the 48 dot.com retailers in our sample possesses the profile of the hypothesized winner.

Based on the profile of the winner, several questions related to the profiles of the other companies can be raised.

1. How does the winner compare with Amazon.com?
2. How does the winner compare with dot.com retailers that filed for bankruptcy?
3. Because the winner has offline experience, how does it compare with other dot.com retailers that also have offline experience? How does it compare with dot.com retailers that do not have offline experience (i.e., pure-play dot.com retailers)?
4. Because the Internet permits the offering of digital products as well as product customization, how does the winner compare with dot.com retailers that offer digital products? How does it compare with firms that offer product customization?

Table 5 addresses the above questions.

### Comparison With Amazon.com

Table 5 (column 3) suggests that, like the winner, Amazon.com provides physical products, search goods, existing products, and no product customization. Compared to 1-800contacts.com, Amazon.com represents a pure-clicks company. Furthermore, Amazon has been a high-profile company in which the management team has focused more on revenue generation than on managing the company for profits. However, unlike the winner, it did not have any offline experience. With respect to alliances, we note that because Amazon has a very diverse product offering, including books, music, toys, computer hardware and software, and consumer electronics, it has a large number of marketing alliances unlike the winner, 1-800contacts.

### Comparison With Bankrupt Dot.com Retailers

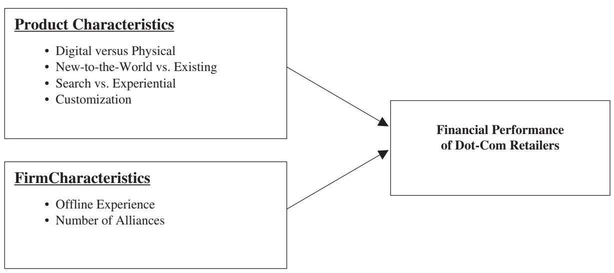
Our sample includes six firms that had filed for bankruptcy. These firms are MotherNature.com, Garden.com, ValueAmerica.com, Mortgage.com, Streamline.com, and Pets.com. Table 5 (column 4) provides the comparison of these firms with the winner.

One key distinguishing characteristic of the bankrupt dot.com retailers is that they are all pure-play dot.coms with no offline product market experience. Hence, the bankrupt retailers lack the crucial product domain and customer knowledge required to successfully execute their marketing strategy. Interestingly, however, we find that, like the winner, most of the bankrupt firms offered physical products, search goods, existing products, and no product customization. Furthermore, they even had relatively fewer alliances (average is five). Hence, it appears that a crucial factor separating the bankrupt retailers from the

**TABLE 5**
**Comparisons of Product and Firm Profile of the Winner With Other Dot.com Retailers**

| *Product and Firm Characteristics* | *Hypothesized Winner (1)* | *Actual Winner: 1-800contacts.com (2)* | *Amazon.com (3)* | *Bankrupt Firms* (n = *6 firms) (4)* | *Offline Experiences* (n = *10 firms) (5)* | *Pure-Clicks Dot.com Retailers* (n = *30) (6)* | *Digital Product Dot.coms* (n = *18) (7)* | *Product Customization Dot.coms* (n = *9) (8)* |
|---|---|---|---|---|---|---|---|---|
| Product characteristic | | | | | | | | |
| Product type | Digital | Physical | Physical | 83 percent physical | 60 percent physical | 53 percent physical | 100 percent digital | 100 percent digital |
| Product properties | Search | Search | Search | 67 percent search | 80 percent search | 60 percent search | 55 percent search | 11 percent search |
| Product newness | Existing | Existing | Existing | 100 percent existing | 100 percent existing | 73 percent existing | 55 percent existing | 33 percent existing |
| Product customization | Yes | No | No | 83 percent no | 90 percent no | 73 percent no | 50 percent no | 100 percent yes |
| Firm characteristic | | | | | | | | |
| Offline experience | Yes | Yes | No | 100 percent no | 100 percent yes | 100 percent no | 22 percent no | 11 percent yes |
| Number of alliances | High | None | 16 | 5 (average), range = 0-12 | 11 (average), range = 1-31 | 11 (average), range = 0-40 | 20 (average), range = 1-40 | 19 (average), range = 5-40 |

**FIGURE 4**
**Conceptual Framework:**
**The Impact of Product and Firm Characteristics on the Financial Performance of Dot.com Retailers**




winner is domain knowledge and an integrated multiple-channel approach (that includes offline and online channels) to their market operations.

### Comparison With Other Offline and Pure-Clicks Dot.com Retailers

In addition to the winner, our sample includes 10 other dot.com retailers that have offline experience. Table 5 (column 5) provides their overall profile in comparison with the winner. Although, like the winner, most of these dot.coms tend to offer physical products, search goods, existing products, and no product customization, a relatively higher number of alliances (average is 11) distinguish them from the winner. Hence, one may infer that, like the pure-play dot.coms, product offerings of this group of dot.com retailers are determined, in part, by their alliance partners. It is interesting to note, however, that the stock price of only 2 (out of 10) of these firms (20%) was less than $1, and the stock price of 1 firm (10%) was less than $2.

In addition to Amazon.com, our sample also includes 30 pure-clicks dot.com retailers. It seems that collectively, this group of firms was hit the most by the stock market. Thirteen (43%) of these dot.com retailers were trading at less than $1, and an additional 11 (37%) were trading at less than $2. As compared to the offline dot.coms, in which 30 percent were listed at $2 or less, 80 percent of the pure-clicks dot.com retailers were listed at $2 or less.

Table 5 (column 6) provides a comparison of pure-click dot.com retailers with the winner. Although, like the winner, the majority of these dot.coms tend to offer physical products, search goods, existing products, and no product customization, they tend to have a higher number of alliances (average is 11, like the offline-experienced dot.coms in Table 5). Hence, it appears that the online retailer's domain knowledge about the business is crucial for performing well, and this knowledge cannot be acquired by partnering with firms that may have this knowledge.

### Comparison With the Digital Product and Product Customization Dot.com Retailers

Table 5 (column 7) compares the overall profile of 18 dot.com retailers that offer digital products to that of the winner, 1-800contacts.com. This group of firms was also hit badly by the stock market in 2000. Among these companies, 10 (55%) of them had their stock price listed below $2, and 7 (39%) were listed below $1. A digital product in the year 2000 was most likely (78%) to be offered by a pure-clicks dot.com retailer through its large number of alliances.

A similar story emerges from Table 5 (column 8) for the 9 dot.com retailers that offer product customization. This group of dot.com retailers also was hit the hardest by the stock market. In fact, 7 of these firms (78%) were trading their stock at less than $1. Hence, product customization alone does not help an online retailer perform well in the online marketplace.

Given the above summary of the profile of the winner and its comparison with the other dot.com retailers, we discuss the implications of these results in the next section.

## CONCLUSIONS

### Implications of Study

In January 2001, *Fortune* reported that 135 dot.coms went bankrupt or shut down operations in 2000 ("Dot-Com Deathwatch" 2001). This trend seems to have continued into 2001. It has been reported that 435 Internet companies shut down in the first 4 months of 2001 (webmergers.com).

Given the gloom over the dot.com industry in 2000, an interesting question is, Did anybody do right? Were there any winners rewarded by the stock market? To address these questions, we have reported on a study of 48 public dot.com retailers completed in December 2000. The increase/decrease in the stock price since the IPO and stock options underwater were used to profile the financial performance of a dot.com retailer. We summarize below the major findings from this study.

(a) According to our analyses, there was only one winner in 2000. On the basis of our conceptual framework (see Figure 4), we had hypothesized winners to be dot.com retailers that offer (1) digital products as opposed to physical products, (2) search goods as opposed to experiential goods, (3) existing products as opposed to the new-to-the-world products, and (4) product customization. We also hypothesized that winners are likely to have (5) offline experience and (6) a relatively large number of alliances. 1-800contacts.com, the sole winner in our study, did not support Propositions 1, 4, and 6. That is, it seems that the stock market rewarded a dot.com retailer that offers a physical product; has a search good, an existing product, offline experience, and no product customization; and does not depend on alliances for its success. It rewarded a dot.com retailer that uses the Internet as an additional channel to augment its existing channels. It rewarded an offline retailer that understood its traditional business.

In addition, the 10 additional dot.com retailers that had offline experience were hit the least by the stock market. Only 2 of them were at risk of being delisted, with their stock price being less than $1.

(b) The stock market was brutal to the dot.com retailers that did not have offline experience. Out of 37 dot.com retailers, 6 filed for bankruptcy and 13 were listed at less than $1.

The profile of Amazon.com, the dot.com that was hit the least by the stock market among this group of firms, is similar to the winner except that it does not have the offline experience and uses a relatively large number of alliances (see Table 5, column 3). The same characteristics hold true for the profiles of the 6 firms that filed for bankruptcy and the pure-clicks dot.coms.

The pure-clicks dot.com retailers that offered digital products, especially product customization, were hit most by the stock market. The majority of these firms were at risk of being delisted, with their stock price being below $1. However, within the digital products category, we see one subset—namely, travel-related services (e.g., Travelocity, Expedia) as a possible candidate for performing well on the Internet. Online travel retailers offer an existing product that is a search good that can be digitized for their customers. In addition, online travel retailers are able to customize their product offerings for their customers. Indeed, online travel retailers match four of the six aspects of our hypothesized profile—namely, digital products, search goods, existing product, and customized products. While these firms did not emerge as winners in 2000, analysts predict a very bright future for online travel retailers ("Where the Net Delivers" 2001).

The overwhelming conclusion from the study seems to be that the investment community was not ready for the Internet revolution. It appreciated the alternative channel opportunity offered by the Internet to traditional retailers, but opportunities in digital products and product customization were not rewarded by the stock market. Is the Internet revolution dead in retailing? We do not think so. In our opinion, from a marketing point of view, two major forces will guide this revolution—consumers and firms that understand the retail business.

The Internet retail business is guided by two economic principles about consumer behavior—information efficiency and transaction efficiency. Both of these principles imply that consumers want "the lowest" price (and hence information efficiency or frictionless commerce is important), and they do not want to put much effort in doing a transaction (e.g., waiting in line). It is not clear whether both of these principles universally apply to all products and to all consumers (Balasubramanian, Mahajan, and Raghunathan 2001). Customers do not always look for the "lowest" price. They are willing to pay more for quality, brand name, product delivery, customer service, and so on (Brynjolfsson and Smith 2000). For some products, the transaction cost itself may be part of the value that a consumer desires from the product (e.g., the experience of shopping for plants by an avid gardener). Furthermore, we may not all be either cyberconsumers or traditional consumers. As argued by Wind and Mahajan (2002), depending on the product, an individual can be a traditional consumer (e.g., purchasing tomatoes in a supermarket) or a cyberconsumer (e.g., purchasing a popular book online). The success of any business ultimately will depend on the acceptance of its value proposition by this hybrid consumer called a centaur (Wind and Mahajan 2002). Thus, total reliance on the principle of information efficiency and transaction efficiency may result in higher dot.com retail failures due to rejection of the value propositions of those dot.coms by the consumers.

The emergence of offline experience as one of the key indicators for financial success in our study also indicates that the investment community does believe that understanding the retail business is critical to the success of any dot.com retailer. This suggests that it is quite possible that real players still have not aggressively entered the Internet retail market. In our opinion, global retailers such as Wal-Mart are clearly in a position to take advantage of the market opportunities offered by the Internet.

The reasons for our speculation are based on Wal-Mart's strength in the following areas: (a) strong global brand name; (b) local market knowledge for product merchandising and product returns; (c) extensive experience with information technology for product ordering and delivery; (d) cost efficiency in its supply chain from product purchase, storage, and store delivery; and (e) capacity to experiment with the Internet due to lack of pressure from venture capitalists and the financial community ("Will Wal-Mart.com Get It Right" 2000).

On the other hand, as indicated in Table 2, Amazon.com has done relatively well among all the pure-clicks dot.com retailers. For its value proposition to be accepted by hybrid consumers (Wind and Mahajan 2002: 317), it needs to integrate well with its offline retail partners. From recent press reports, it appears that Amazon may be interested in tying up with offline stores. Indeed, Amazon has recently taken over the Web site of a offline bookseller, Borders, with a view to gaining access to their offline stores (“Amazon to Take Over Borders.com” 2001), and it is exploring the possibility of tying up with large offline stores, including Wal-Mart (“Amazon, Wal-Mart Might Partner” 2001) and Best Buy (“Amazon, Best Buy in Partnership” 2001). In fact, a merger between retailers such as Wal-Mart and Amazon.com is not a remote possibility.

### Limitations and Future Research Opportunities

Like all research, our research has limitations that qualify our results and provide future opportunities for research. First, because we are studying a phenomenon that is dynamic and we elected to study the performance of these firms in December 2000, the scope of our research is restricted to a snapshot analysis of the firms at that point in time. As the data in our article indicate, while the general trend of our findings continues to hold, at the time of going to press (summer 2002), it is likely that as the Internet evolves and consumers’ online shopping behavior changes, the performance of the dot.com retailers we document in this study may change over time. Hence, future researchers could examine the stability of our findings and also investigate changes, if any, in the performance of these dot.com retailers over time. Second, the performance metrics that we use in this research were based on stock market–based measures—which were considered to be important performance metrics for dot.com retailers in the late 1990s. However, a number of other metrics are informative and managerially diagnostic, especially as the investor hype about the Internet settles down and the Internet is integrated into the marketing functions of organization. These performance metrics include customer satisfaction, customer retention, and traditional financial performance measures such as return on assets, return on sales, and so on. Hence, future research on the performance of dot.com retailers could examine the performance of dot.com retailers on these other metrics. Third, because of our interest in investigating the performance of dot.com retailers, we did not examine the performance of offline retailers, including bricks-and-mortar stores and direct marketer firms that had predominantly offline marketing models at the time we collected data for this study. However, a number of these firms have since increased their online emphasis. Indeed, the lasting impact of the Internet and online shopping is expected to be in firms with traditional businesses that will be able to successfully integrate the Internet into their business processes. Hence, future researchers could investigate the effects of the Internet on the performance of these predominantly offline direct marketers as they transition online. Finally, the survival of the firms themselves may be a measure of performance that is of interest to investors and community and venture capitalist firms. Because of the small sample size ($N = 48$), we are unable to estimate models of survival analysis. Future researchers, using databases of IPO-ed firms, could model the survival duration of dot.com startup firms. In sum, while our research provides a useful snapshot of the performance of dot.com retailers in 2000—and important year in the development of the dot.com sector—many opportunities exist for enhancing our knowledge of the dynamic dot.com business environment.

## APPENDIX
## 1-800contacts.com

Founded in 1995 and IPO-ed in 1998, 1-800contacts is the world’s largest contact lens store. 1-800contacts is a direct marketer of replacement contact lenses. 1-800contacts has focused its attention on contact lenses. In fact, it does not sell any other product except contact lenses. An interesting characteristic of contact lenses is the fact that once a prescription for contact lenses has been obtained from an optician, contact lenses are search goods with low weight and volume for which ordering over the Internet affords both information and transaction efficiency.

Through its easy-to-remember “1-800contacts” and its Web site, contacts.com, the firm sells a wide range of popular brands of contact lenses through its call center, where there are 200 agents standing by to take orders 7 days a week. While 1-800 contacts has multiple channels for the sale of contact lenses—mail, fax, telephone and the Internet—the firm provides incentives to customers who place orders on the Internet, and all orders placed through its Web site automatically receive standard free shipping. Indeed, 1-800 contacts stresses the fact that it is not a Web-only company—it uses its Web site as one of multiple channels for selling contact lenses. In 1998, when all the dot.com retailers were invested heavily in Web site promotion, 1-800contacts invested both on its Web site and telephone ordering system by significantly expanding its call center operations to improve the level of customer service for its telephone-based customers.

From its one location in Utah, 1-800contacts stocks 10 million contact lenses and delivers more than 100,000 every day directly to customers. As a result of its extensive inventory, 1-800contacts is generally able to ship approximately more than 90 percent of its orders within 24 hours of receipt. The company’s high-volume cost-efficient operations, supported by state-of-the-art management information and logistic systems, enables it to offer products at competitive prices while offering a high level of customer service. A notable feature of its marketing and logistic operation is the fact it does not have any marketing alliances. Hence, all deliveries to its customers are completely under control, ensuring the delivery of a high level of customer service as well as customer satisfaction. Furthermore, its state-of-the-art integrated customer management system allows it to recognize returning online customers, facilitating easy reordering online for a product category in which reordering is intrinsic to the category. Indeed, its customer database system is fully integrated with its Web site, so that a customer can place an offline order for the first time and then place subsequent orders online.

SOURCE: Wind and Mahajan (2002:21-25) and http://www.1800contacts.com.

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## NOTES

1. Subsequently (in September 2001), the delisting norms were temporarily liberalized, and Nasdaq is giving 3 months' time to companies that are presently quoting below the $1 limit before they are delisted from the exchange. Indeed, a number of firms in our sample had stock prices hovering around the $1 price range.

2. Stock splits do not affect the percentage stock options underwater because stock options are adjusted for stock splits.

3. It is important to note that some studies have tried to explain the variation in the market valuation of dot.coms (e.g., Demers and Lev 2000; Desmet, Francis, Hu, Kolter, and Riedel 2000; Hand 2000; Shankar 2000; Trueman, Wong, and Zhang 2000). However, unlike the current study, the focus of most of these studies is establishing the linkage between Web site–based metrics, such as unique visitors, page-views, stickiness, and market value of a dot.com.

4. In this regard, it is important to note that recent reports in the press ("Cloudy Future" 2002) indicate that 1-800contacts.com may be facing some challenges with respect to the legality of selling contact lenses on the World Wide Web ("Contact Settlement" 2001).

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