



ONLINE SHOPPING: CAN THE HOLIDAY BOOM LAST?

Welcome to *Systems Thinking Workout*, the newest column in *THE SYSTEMS THINKER* newsletter. As Daniel Kim writes in this month's *Toolbox*, losing weight and getting more exercise probably top the list of New Year's resolutions for many of us. In keeping with the fitness theme, we're introducing *Systems Thinking Workout* to help you flex your systems thinking muscles.

Systems are everywhere, but learning to spot them and work within them can take practice and endurance. In *Systems Thinking Workout*, we present a story or scenario that contains some interesting systemic structures. We then encourage you to identify what you see as the most relevant structures and themes from the story; capture them graphically in causal loop diagrams, behavior over time graphs, or stock and flow diagrams; and, if you choose, send the diagrams to us with comments about why the dynamics you identified are important and where the leverage is for making lasting change. We'll publish selected diagrams and comments in a subsequent issue of the newsletter, so that you, our readers, can share your thinking with each other.

So, let's stretch out and warm up with a story about a topic that is especially timely after the holidays. . . . Remember, most situations can be examined at several different levels of complexity—there's something here for beginners as well as for the advanced practitioner.

Amazon.com Inc., the giant online bookstore, is a prime example of the challenges facing retailers who want to do more commerce electronically. Even though the company's sales tripled in the fourth quarter of 1998, its gross margins are falling—owing to the higher cost of filling orders and the narrow profit margins inherent in music and video products. Eddie Bauer Inc., the outdoor clothing and equipment retailer, experienced a similar pattern of rising order-processing costs overmatching increases in sales.

Jeffrey Bezos, the founder and CEO of Amazon, argues, "The time to spend heavily on marketing and service is now, when the market is being formed, even if the company has to incur extra costs such as overnight delivery to keep customers happy." And online vendors have many advantages to help attract shoppers, such as convenience and competitive prices. But the question facing such companies then becomes: How do you cover the costs incurred by growing into new, online markets and providing high-quality customer service?

The 1998 holiday season revealed a number of striking trends in online buying. For example, online holiday sales hit \$3.5 billion and accounted for 45 percent of total online sales for that year. (By contrast, in-store holiday purchases usually account for

only 10 percent of the annual total.) The good news for Internet retailers is that shoppers branched out from books, music, and electronics to purchase clothing online. And 98 percent of Internet shoppers said they would plan to buy electronically again within six months.

Forrester Research and *Business Week* estimate that total U.S. online sales will soar from about \$7.8 billion in 1998 to about \$108 billion by 2003. Although only 1 percent of Visa's sales volume came from the Internet in 1998, the company predicts that as much as 10 percent will come from that source by 2003. Other interesting statistics involve the kinds of products that sell electronically. Twenty to 30 percent of book sales, for instance, are expected to take place online within five years. On the other hand, if clothing sales over the Internet parallel the catalog model, cyber vendors could be in trouble—catalog sales account for just 8.5 percent of the women's clothing market. In the meantime, catalog retailers are steadily offering more and more of their products online.

Thus, as 1999 ramps up, online merchants have a lot to consider as they try to break even—and make a profit—with this promising new commercial forum. ■

Source: "Twas the Season for E-Splurging," *Business Week*, January 18, 1999

YOUR WORKOUT CHALLENGE

What do you see as the significant patterns and systemic structures at work in the story? Remember that often the best diagrams are the most simple—so, if possible, keep your diagrams limited to the key dynamics at work. Send your causal loop

diagrams, behavior over time graphs, or stock and flow diagrams to Lauren Johnson, with commentary, by fax at (781) 894-7175 or email (lauriej@pegasus.com). We look forward to sharing your thoughts with other readers!