TUCK SCHOOL OF BUSINESS AT DARTMOUTH
WILLIAM F. ACHTMEYER
CENTER FOR
GLOBAL LEADERSHIP

no. 2-0014

Dell Computer Corporation

As of July 2002, Dell Computer Corporation (Dell) was the world's largest direct-selling computer company, with 34,800 employees in more than 30 countries and customers in more than 170 countries. Headquartered in Austin, Texas, Dell had gained a reputation as one of the world's most preferred computer systems companies and a premier provider of products and services that customers worldwide needed to build their information-technology and Internet infrastructures. Dell's climb to market leadership was the result of a persistent focus on delivering the best possible customer experience. Direct selling, from manufacturer to consumer, was a key component of its strategy.

Dell was founded in 1984 by Michael Dell, who, in 2002, was the computer industry's longest-tenured chief executive officer. The company was based on a simple concept: that Dell could best understand consumer needs and efficiently provide the most effective computing solutions to meet those needs by selling computer systems directly to customers. This direct business model eliminated retailers, who added unnecessary time and cost, and also allowed the company to build every system to order, offering customers powerful, richly configured systems at competitive prices. Dell introduced the latest relevant technology much more quickly than companies with slow-moving, indirect distribution channels, turning over inventory an average of every four days. In less than two decades, Dell became the number-one retailer of personal computers, outselling IBM, Hewlett-Packard, and Compaq.[1] (See Exhibit 1 for comparative financial data.)

[1] "Dell Tops Compaq in U.S. Sales," *The Wall Street Journal*, 28 October 1999, E6.

This case was written by Professor Vijay Govindarajan and Julie B. Lang T'93 of the Tuck School of Business at Dartmouth. The case was based on research sponsored by the William F. Achtmeyer Center for Global Leadership. It was written for class discussion and not to illustrate effective or ineffective management practices.

Sources: **The Quest for Global Dominance: Transforming Global Presence into Global Competitive Advantage** by Vijay Govindarajan and Anil K. Gupta, Chapter 8 ©2001 by John Wiley & Sons, Inc. "The Power of Virtual Integration: An Interview with Dell Computer's Michael Dell," by Joan Magretta, HBR OnPoint, Harvard Business Review, March-April 1998. **What Management Is: How it works and why it's everyone's business** by Joan Magretta, ©2002 The Free Press. *Direct from Dell: Strategies that Revolutionized an Industry* by Michael Dell with Catherine Fredman ©1999 by HarperCollins Publishers Inc. http://www.dell.com

© 2002 Trustees of Dartmouth College. All rights reserved.

To order additional copies, please call 603-646-0898

The traditional value chain in the personal computer industry was characterized as "build-to-stock." PC manufacturers, such as IBM, Compaq, and Hewlett-Packard, designed and built their products with preconfigured options based on market forecasts. Products were first stored in company warehouses and later dispatched to resellers, retailers, and other intermediaries who typically added a 20–30 percent markup before selling to their customers. PC manufacturers controlled the upstream part of the value chain, giving the downstream part to middlemen. Retailers justified their margins by providing several benefits to customers: easily accessed locations, selection across multiple brands, opportunity to see and test products before purchasing, and knowledgeable salespeople who could educate customers about their choices.

Two trends in the early 1980s allowed Michael Dell to radically reengineer the PC industry value chain. First, corporate customers were becoming increasingly sophisticated and therefore did not require intense personal selling by salespeople. By the late 1980s, individuals—especially those buying their second or third PCs—had become savvy and experienced technology users. Second, the different components of a PC—the monitor, keyboard, memory, disk drive, software, and so on—became standard modules, permitting mass customization in PC system configuration.

Dell Computer's direct model departed from the industry's historical rules on several fronts: The company outsourced all components but performed assembly. It eliminated retailers and shipped directly from its factories to end customers. It took customized orders for hardware and software over the phone or via the Internet. And it designed an integrated supply chain linking Dell's suppliers very closely to its assembly factories and order-intake system.

Management Systems

Turning Michael Dell's concept into reality meant rallying a large and dynamic organization around a common purpose and measuring its performance by relevant and concrete measurements (or metrics). In August 1993, Dell engaged Bain & Company, Inc., a global business consultancy, to help it develop a set of metrics to judge business-unit performance. Reflecting on that experience, Michael Dell said, "It was all about assigning responsibility and accountability to the managers.… Indeed, there were some managers within Dell who resisted the use of facts and data in daily decision making, and, painful as it was for all of us, they eventually left. But for the most part, people were energized by the change. We carefully communicated what this meant for the company's future to our employees, customers, and shareholders. It was met with an overwhelmingly positive response because of the clarity of vision it afforded. 'Facts are your friend' soon became a common phrase at Dell. We were still the same company, marked by the same Dell drive and spirit, but we were better armed to make important decisions."[2]

Dell recognized early the need for speed, or velocity, quickening the pace at every step of business. The company learned that the more workers handled, or touched, the product along the assembly process, the longer the process took and the greater the probability of quality concerns. Dell began to track and systematically reduce the number of "touches" along the line, driving it to zero. The company took orders from customers and fulfilled them by buying and assembling the needed components. Customers got exactly the configuration they desired, and Dell reduced its need for plants, equipment, and R&D. As a result, Dell turned a product business into a service industry.

The primary financial objective that guided managerial evaluation at Dell was return on invested capital (ROIC). Thomas J. Meredith, former Dell CFO, even put ROIC on his license plate.

Dell's scorecard included both financial measures (ROIC, average selling price, component purchasing costs, selling and administration costs, and margins) and nonfinancial measures (component inventory, finished goods inventory, accounts receivable days, accounts payable days, cash-conversion cycle, stock outs, and accuracy of forecast demand). The scorecard was generated on a real-time basis, and relevant performance measures were broken down by customer segment, product category, and country.

Discussion Questions

1. What is Dell's strategy? What is the basis on which Dell builds its competitive advantage?
2. How do Dell's control systems help execute the firm's strategy?

[2] Michael Dell with Catherine Fredman, *Direct from Dell: Strategies that Revolutionized an Industry* (HarperCollins Publishers Inc., 1999), 61

Exhibit 1 Comparative Financial Data on Selected Companies

	Five-Year Average: 1995-2000				
	Dell	IBM	Compaq	HP	Gateway
Five-year return on equity (percentage)	54.6	33.4	5.1	19.6	20.0
Five-year sales growth (percentage)	43.2	4.2	23.5	9.1	21.2
Five-year net income growth (percentage)	51.6	14.1	-6.3	8.7	6.9
			2000 Data		
Sales ($B)	31.9	88.4	42.4	48.8	9.6
As percentage of sales:					
Cost of goods sold	79	58	73	69	77
Gross margin	21	42	27	31	23
Selling and administration	11.5	23.5	17.7	20.6	15.9
Research and development	1.5	4.9	1.7	5.4	NA
Operating income	9.4	18.3	9.1	10.3	7.5
Net Income	6.8	9.2	1.3	7.6	2.5
Inventory turnover	64	11	15	6	29
Return on equity (percentage)	40	40	5	25	11