APPLICATION 13.4

Apple Is Good, but Windows Is Good Enough[24]

In the late 1980s, Apple Computer was a symbol of the American economic renaissance. From 1986 to 1989, the company's return on investment exceeded its cost of capital by 27 percent. Wall Street loved Apple, and investors flocked to buy its stock. In the movie *Forrest Gump,* Lieutenant Dan invested Gump's shrimp-boat earnings in Apple stock—and Gump became a millionaire (from an orchard, he said).

But within a decade, Apple had fallen apart. Apple's CEO John Sculley was fired in 1993. His successor, Michael Spindler, was fired in 1996. His successor, Gil Amelio, was fired in 1997. In 1996, the company lost $816 million. In 1997, it lost $1.04 billion.

Apple's collapse is a complicated story that involves both economics and personalities. But one important factor in its demise in the early 1990s was the narrowing of product differentiation between Macintosh computers and IBM-compatible personal computers (PCs) that ran on Intel microprocessors and the Microsoft operating system. In 1989, you could clearly see the difference between a Mac and a PC. Macs relied on an easy-to-use graphical user interface controlled by the click of a mouse. PCs used the confusing and cumbersome DOS operating system. As one analyst said at the time, "The majority of IBM and compatible users 'put up' with their machines, but Apple customers 'love' their Macs."[25]

Until 1990, the personal computer market exhibited clear horizontal differentiation. Serious number crunchers preferred Intel-based computers because of their power, and businesses often preferred them because of the availability of DOS-based "killer apps" such as Lotus 1-2-3 and WordPerfect. Home users, especially those with kids, loved Apples for their ease of use, while graphic designers loved the Mac because of its superior desktop publishing and multimedia capabilities. This strong horizontal differentiation allowed Apple to follow what John Sculley called the 50–50–50 rule: If Apple can sell 50,000 Macs per month with a gross margin of 50 percent, its stock price would be $50 per share.[26]

But the release of Windows 3.0 in 1990 eroded this horizontal differentiation. Windows 3.0 was still inferior to the Apple's operating system, but it was nevertheless a big improvement over DOS. Suddenly, PCs became much more user friendly. For many consumers, particularly home buyers who used PCs at work, the user friendliness was just "good enough."

The narrowing of product differentiation hurt Apple. During the second half of the 1980s, prices of PCs fell, as low-cost clone makers, such as Dell and Gateway, entered the market and used price to compete against established firms, such as IBM. Until the early 1990s, the horizontal differentiation between Macs and PCs was so strong that Apple was largely immune from the effects of this price war. For many consumers, a cheap clone was a poor substitute for an elegant Mac, and so, as in Figure 13.9(b), Apple's demand curve was largely unaffected by falling PC prices. But with Windows installed, those cheap clones looked a lot better. By 1991 Apple found itself under severe pressure from the price war among the "Wintel" producers. It responded by cutting prices on all its Macs and rolling out a low-end Mac Classic for under $1,000. But with the highest marginal costs in the personal computer industry, Apple could not make much money by cutting prices. Moreover, despite lower-priced Macs, the Wintel side of the market enjoyed a huge momentum from the wide availability of business software and games.

Apple eventually abandoned its attempts to compete on price and is now a niche player in the personal computer industry. Its hugely successful iMacs have restored some of its former product differentiation. Apple has also dramatically improved its operating efficiency. But Apple remains strongest in a few segments (desktop publishing, education markets) that are small parts of the broader PC market. In 1998 Steve Jobs, one of the co-founders of Apple, returned as president. He has helped restore Apple's reputation for innovation with a series of sleekly designed computers and its phenomenally popular iPod. Still, as long as the Windows operating system remains "good enough," Apple may find it difficult to increase its market share substantially.

[24]This example draws from *Apple Computer 1992,* Harvard Business School Case 9-792-081, and from J. Carlton, *Apple: The Inside Story of Intrigue, Egomania, and Business Blunders* (New York: Times Business), 1997.

[25]*Apple Computer 1992,* p. 7.

[26]Gross margin is the difference between a firm's price and the average cost of making its product, expressed as a percentage of the selling price.