Chapter 1

Introduction

A central premise in economics is that prices adjust to match supply with demand: if there is excess demand, prices rise; if there is excess supply, prices fall. But while an economist may find comfort with this theory, managers in practice often do not. To them excess demand means lost revenue and excess supply means wasted resources. They fully understand that matching supply with demand is extremely difficult and requires more tools than just price adjustments.

Consider the following examples:

- In 2006, Nintendo launched the Wii game console with much success—so much success that the company could not make enough units to keep up with demand. Some entrepreneurs would wait in long lines to purchase scarce units only to turn around and sell them online for several hundred dollars over the retail price.
- In 2007, Dell lost its worldwide market share leadership to HP. Trying to regain momentum, Dell offered laptop computers to consumers in various colors. Unfortunately, problems with dust contamination in the painting process prevented Dell from ramping up production, causing long delays, which in turn caused some customers to cancel their order.
- In January 2004, Vanguard enjoyed the good fortune of a net inflow of $9.4 billion into its mutual funds. Unfortunately, Vanguard, who is well known for their low cost mutual funds, had a hard time handling the flood of calls to its call center—for the first three weeks in January, the average investor spent nearly seven minutes waiting for her or his call to be answered by a Vanguard representative. Before this surge in activity, Vanguard normally answered calls within 55 seconds. Vanguard began hiring to bolster its staffing but took several months to return service back to an acceptable level.
- In July 2007, a 6.8-magnitude earthquake hit central Japan and seriously damaged the production facility of Riken Corp., maker of piston rings costing about $1.50 each. Consequently, due to a lack of parts, Toyota was forced to shut down 12 factories and lost an estimated production of 46,000 vehicles.
- In 2005, Airbus announced a production delay for its new 550-passenger jumbo jet, the A380. The company put the blame on production complications with the miles of wiring in the aircraft. In June 2006 the company announced a second production delay, again due to complications with wiring, indicating that the problem had not been solved. As a result, Airbus estimated that it would lose 4 billion euros from its bottom line over the next four years.
- In early 2002, a victim of a car crash in Germany died in a rescue helicopter after the medical team together with their dispatcher had unsuccessfully attempted to find a slot in an operating room at eight different hospitals. In the United States, every day there are thousands of patients requiring emergency care who cannot be transported to the nearest emergency room and/or have to wait considerable time before receiving care.