

Also notice that activities get and put data resources from and to databases. For example, the purchase-bicycle-parts activity queries the raw materials database to determine the materials to order. The receiving activity updates the raw materials database to indicate the arrival of materials. The make-bicycle activity updates the raw materials database to indicate the consumption of materials. Similar actions are taken in the sales process against the finished goods database.

Business processes vary in cost and effectiveness. In fact, the streamlining of business processes to increase margin (add value, reduce costs, or both) is key to competitive advantage. You will learn about process design when we discuss **business process management** in Chapter 10. To get a flavor of process design, however, consider Figure 3-9, which shows an alternate process for the bicycle manufacturer. Here, the purchase-bicycle-parts activity not only queries the raw materials inventory database, it also queries the finished goods inventory database. Querying both databases allows the purchasing department to make decisions not just on raw materials quantities, but also on customer demand. By using this data, purchasing can reduce the size of raw materials inventory, reducing production costs and thus adding margin to the value chain. This is an example of using a linkage across business processes to improve process margin.

As you will learn, however, changing business processes is not easy to do. Most process design requires people to work in new ways, to follow different procedures, and employees often resist such change. In Figure 3-9, the employees who perform the purchase-bicycle-parts activity need to learn to adjust their ordering processes to use customer purchase patterns. Another complication is that data stored in the finished goods database likely will need to be redesigned to keep track of customer demand data. As you will learn in Chapter 10, that redesign effort will require that some application programs be changed as well.

Figure 3-9 Improved Material Ordering Process

