



Pine Valley Furniture Company Background

Pine Valley Furniture (PVF) Company manufactures high-quality wood furniture and distributes it to retail stores within the United States. Its product lines include dinette sets, stereo cabinets, wall units, living room furniture, and bedroom furniture. In the early 1980s, PVF's founder, Alex Schuster, started to make and sell custom furniture in his garage. Alex managed invoices and kept track of customers by using file folders and a filing cabinet. By 1984, business expanded and Alex had to rent a warehouse and hire a part-time bookkeeper. PVF's product line had multiplied, sales volume had doubled, and staff had increased to fifty employees. By 1990, PVF moved into its third and present location. Because of the added complexity of the company's operations, Alex reorganized the company into the following functional areas:

- Manufacturing, which was further subdivided into three separate Functions—fabrication, assembling, and finishing
- Sales
- Orders
- Accounting
- Purchasing

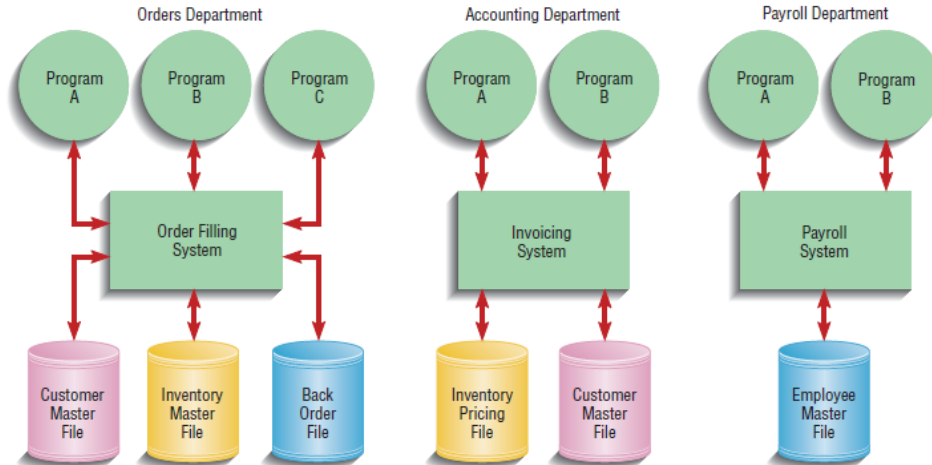
Alex and the heads of the functional areas established manual information systems, such as accounting ledgers and file folders, which worked well for a time. Eventually, however, PVF selected and installed a minicomputer to automate invoicing, accounts receivable, and inventory control applications.

When the applications were first computerized, each separate application had its own individual data files tailored to the needs of each functional area. As is typical in such situations, the applications closely resembled the manual systems on which they were based. Three computer applications at PVF are depicted in Figure 3-2: order filling, invoicing, and payroll. In the late 1990s, PVF formed a task force to study the possibility of moving to a database approach.

After a preliminary study, management decided to convert its information systems to such an approach. The company upgraded its minicomputer and implemented a database management system. By the time we caught up with PVF, it had successfully designed and populated a company-wide database, and had converted its applications to work with the database. However, PVF is continuing to grow at a rapid rate, putting pressure on its current application systems.

FIGURE 3-2
Three computer applications
at Pine Valley Furniture:
order filling, invoicing,
and payroll.

Source: Hoffer, Ramesh, and
Topi, 2011.



The computer-based applications at PVF support its business processes. When customers order furniture, their orders must be processed appropriately: Furniture must be built and shipped to the right customer and the right invoice mailed to the right address. Employees have to be paid for their work. Given these tasks, most of PVF's computer-based applications are located in the accounting and financial areas. The applications include order filling, invoicing, accounts receivable, inventory control, accounts payable, payroll, and general ledger. At one time, each application had its own data files. For example, PVF had a customer master file, an inventory master file, a back-order file, an inventory pricing file, and an employee master file. The order filling system uses data from three files: customer master, inventory master, and back order. With PVF's new centralized database, data are organized around entities, or subjects, such as customers, invoices, and orders. Pine Valley Furniture Company, like many firms, decided to develop its application software in-house; that is, it hired staff and bought computer hardware and software necessary to build application software suited to its own needs.