

BUSINESS DRIVEN ETHICS AND SECURITY

Information Issues in the Information Age

We live in the information age where the collection, storage, and use of data are hot topics. One example of inappropriate data handling occurred at a college where the monitoring of restrooms occurred every 17 seconds to observe the use of toilet mirrors, and some students, faculty, and staff began complaining that the data collection was an invasion of their privacy and a violation of their rights.

Another example of inappropriate data handling occurred when a professor of accounting at a college lost a flash drive containing information for more than 1,800 students, including Social Security numbers, grades, and names. Social Security numbers were included because the data went back to before 1993 when the college used Social Security numbers to identify students.

What types of student data does your college collect? What could happen if your professor lost a thumb drive with all of your personal information? What types of issues could you encounter if someone stole your personal data? What can your college do to ensure this type of data storage violation does not occur?⁵

temperature is above 80 degrees, and the stock market is performing well. This is BI at its finest, incorporating all types of internal and external variables to anticipate business performance.

Top managers use BI to define the future of the business, analyzing markets, industries, and economies to determine the strategic direction the company must follow to remain profitable. Tony will set the strategic direction for his firm, which might include introducing new flavors of potato chips or sport drinks as new product lines or schools and hospitals as new market segments.

Knowledge

Knowledge includes the skills, experience, and expertise, coupled with information and intelligence, that creates a person's intellectual resources. **Knowledge workers** are individuals valued for their ability to interpret and analyze information. Today's workers are commonly referred to as knowledge workers and they use BI along with personal experience to make decisions based on both information and intuition, a valuable resource for any company.

Imagine that Tony analyzes his data and finds his weakest sales representative for this period is Craig Schultz. If Tony considered only this information, he might conclude that firing Craig was a good business decision. However, because Tony has knowledge about how the company operates, he knows Craig has been out on medical leave for several weeks; hence, his sales numbers are low. Without this additional knowledge, Tony might have executed a bad business decision, delivered a negative message to the other employees, and sent his best sales representatives out to look for other jobs.

The key point in this scenario is that it is simply impossible to collect all the information about every situation, and yet without that, it can be easy to misunderstand the problem. Using data, information, business intelligence, and knowledge to make decisions and solve problems is the key to finding success in business. These core drivers of the information age are the building blocks of business systems.

THE CHALLENGE: DEPARTMENTAL COMPANIES

Companies are typically organized by department or functional area such as:

Accounting: Records, measures, and reports monetary transactions.

Finance: Deals with strategic financial issues including money, banking, credit, investments, and assets.

Human resources: Maintains policies, plans, and procedures for the effective management of employees.

Marketing: Supports sales by planning, pricing, and promoting goods or services.

Operations management: Manages the process of converting or transforming resources into goods or services.

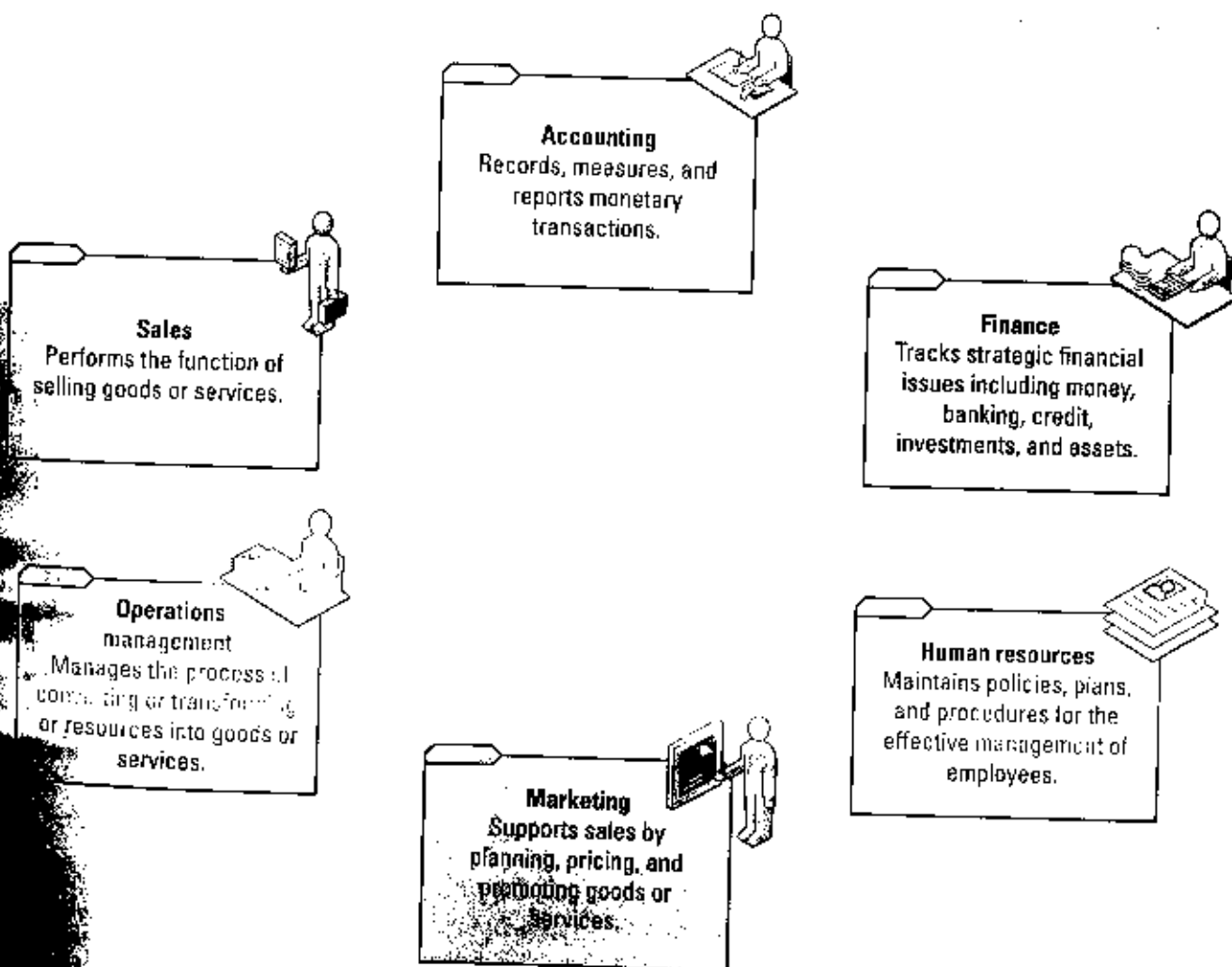
Sales: Performs the function of selling goods or services (see Figure 1.6).

Each department performs its own activities. Sales and marketing focus on moving goods or services into the hands of consumers; they maintain transactional data. Finance and accounting focus on managing the company's resources and maintain monetary data. Operations management focuses on manufacturing and maintains production data, while human resources focuses on hiring and training people and maintains employee data. Although each department has its own focus and data, none can work independently if the company is to operate as a whole. It is easy to see how a

LO 1.2. Identify the different departments in a company and why they must work together to achieve success.

FIGURE 1.6

Departments Working Independently



vending machines, gas stations, and convenience stores, increasing the availability of soft drinks relative to other beverages. Companies can also offer various add-on services, making the substitute product less of a threat. For example, iPhones include capabilities for games, videos, and music, making a traditional cell phone less of a substitute.¹⁴

Threat of New Entrants

The **threat of new entrants** is high when it is easy for new competitors to enter a market and low when there are significant entry barriers to joining a market. An **entry barrier** is a feature of a product or service that makes it difficult for those who come to expect and entering competitors must offer the same for survival. For example, a new bank must develop a variety of MIS-enabled services, including online bid paying, credit card processing, and so on. These are significant barriers to new firms entering the industry. At the same time, the first bank to offer a service may have a valuable head start, but only temporarily, as other banks develop their own services.

Rivalry among Existing Competitors

Rivalry among existing competitors is high when competition is fierce in a market and low when competitors are more complacent. Although competition is always more intense in some industries than in others, the overall trend is toward increased competition in almost every industry. The retail grocery industry is intensively competitive. Kroger, Safeway, and Albertsons in the United States compete in many different ways, essentially trying to beat or match each other on price. Most supermarket chains have implemented loyalty programs to provide customers special discounts while gathering valuable information about their purchasing habits. In the future, expect to see grocery stores using wireless technologies that track customer movements throughout the store to determine purchasing sequences.

Product differentiation occurs when a company develops unique differences in its products or services with the intent to influence demand. Companies can use differentiation to reduce rivalry. For example, while many companies sell books and videos on the Internet, Amazon differentiates itself by using customer profiling. When a customer visits Amazon.com repeatedly, Amazon begins to offer products tailored to that particular customer based on his or her profile. In this way, Amazon has reduced its rivals' power by offering its customers a differentiated service.

To review, the Five Forces Model helps managers set business strategy by identifying the competitive structure and economic environment of an industry. If the forces are strong, they increase competition; if the forces are weak, they decrease it (see Figure 1.15).¹⁶

Analyzing the Airline Industry

Let us bring Porter's five forces together to look at the competitive forces shaping an industry and highlight business strategies to help it remain competitive. Assume a shipping company is deciding whether to enter the commercial airline industry. If

FIGURE 1.15

Strong and Weak Examples of Porter's Five Forces

	Weak Force: Decreases Competition or Few Competitors	Strong Force: Increases Competition or Lots of Competitors
Buyer Power	An international hotel chain purchasing milk	A single consumer purchasing milk
Supplier Power	A company that makes airline engines	A company that makes pencils
Threat of Substitute Products or Services	Cancer drugs from a pharmaceutical company	Coffee from McDonald's
Threat of New Entrants	A professional hockey team	A dog walking business
Rivalry among Existing Competitors	Department of Motor Vehicles	A coffee shop

BUSINESS DRIVEN INNOVATION

Is there anything more frustrating than waiting in line at the post office? Not only are those lines frustrating, but they are also unprofitable. The U.S. Postal Service has faced multibillion-dollar losses every year for the past few years, making for one of the greatest challenges in its history.

What is killing the post office? Perhaps it is Stamps.com, a website that allows you to customize and print your own stamps 24 hours a day. Getting married? Place a photo of the happy couple right on the stamp for the invitations. Starting a business? Place your business logo on your stamps. Stamps.com even keeps track of a customer's postal spending and can recommend optimal delivery methods. Plus, Stamps.com gives you postage discounts you can't get at the post office or with a postage meter.

Evaluate the U.S. Postal Service using Porter's Five Forces Model. How could the Postal Service create new products and services to help grow its business? What types of competitive advantages can you identify for the Postal Service?¹⁴

Fixing the Post Office

performed correctly, an analysis of the five forces should determine that this is a highly risky business strategy because all five forces are strong. It will thus be difficult to generate a profit.

- **Buyer power:** Buyer power is high because customers have many airlines to choose from and typically make purchases based on price, not carrier.
- **Supplier power:** Supplier power is high since there are limited plane and engine manufacturers to choose from, and unionized workforces (suppliers of labor) restrict airline profits.
- **Threat of substitute products or services:** The threat of substitute products is high from many transportation alternatives including automobiles, trains, and boats, and from transportation substitutes such as videoconferencing and virtual meetings.
- **Threat of new entrants:** The threat of new entrants is high because new airlines are continuously entering the market, including sky taxis offering low-cost on-demand air taxi service.

Rivalry among existing competitors: Rivalry in the airline industry is high, and suppliers are likely to pressure them to compete on price (see Figure 1.16).¹⁵

Porter's Five Forces		Industry
Buyer Power	Many airlines for buyers to choose from forcing competition based on price	High
Supplier Power	Limited number of plane and engine manufacturers to choose from along with unionized workers	High
Substitute Products	Many substitutes including cars, trains, and busses. Even substitutes to travel such as video conferencing and virtual meetings.	High
New Entrants	Many new airlines entering the market all the time including the latest sky taxis.	High
Rivalry Among Existing Competitors	Intense competition—many rivals.	High