When You Finish This Chapter, You Should

1. Understand what "Product" really means.

2. Know the key differences between goods and services.

3. Know the differences among the various consumer and business product classes.

4. Understand how the product classes can help a marketing manager plan marketing strategies.

5. Understand what branding is and how to use it in strategy planning.

6. Understand the importance of packaging in strategy planning.

7. Understand the role of warranties in strategy planning.

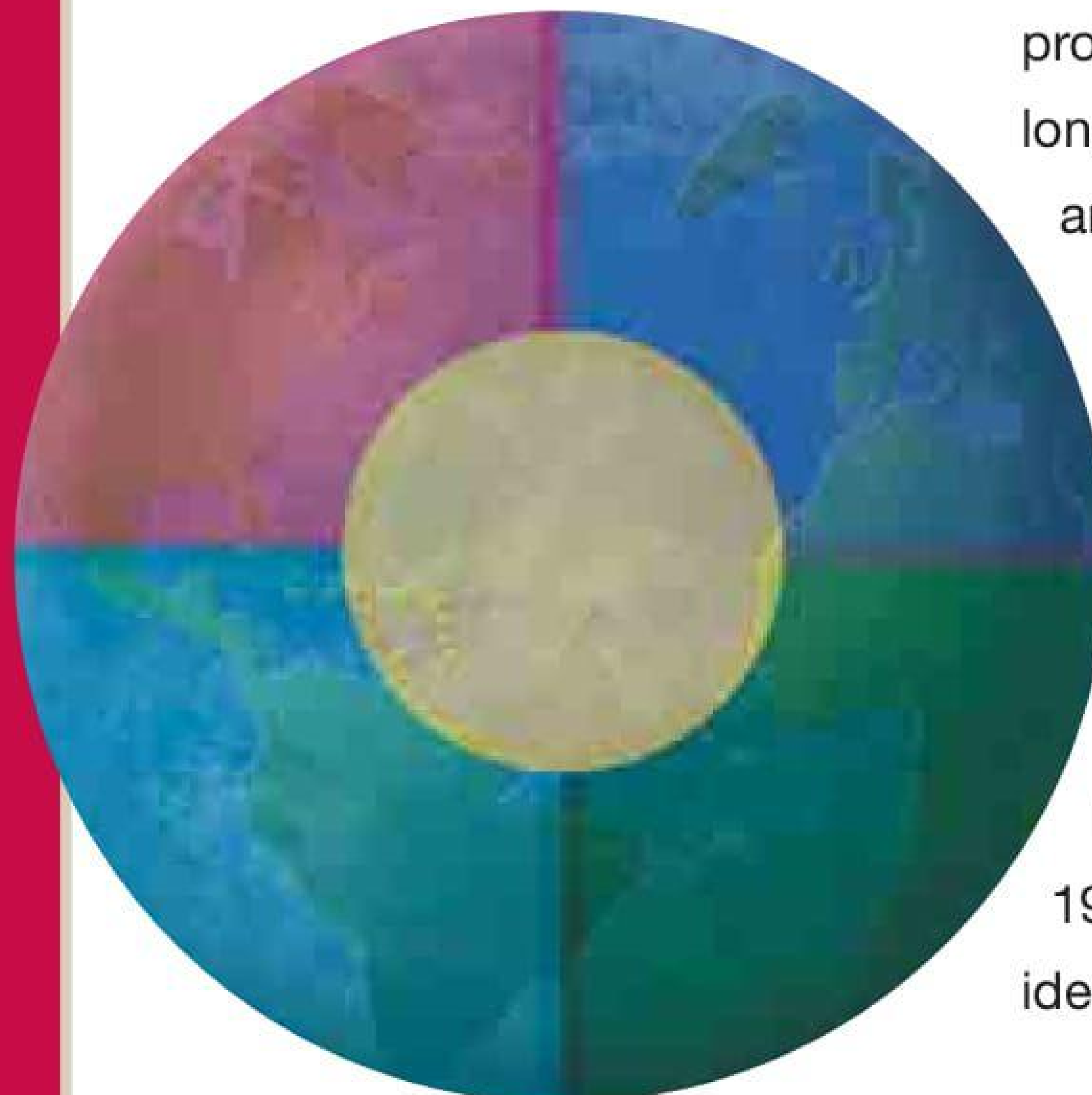
8. Understand the important new terms (shown in red).

Chapter Nine

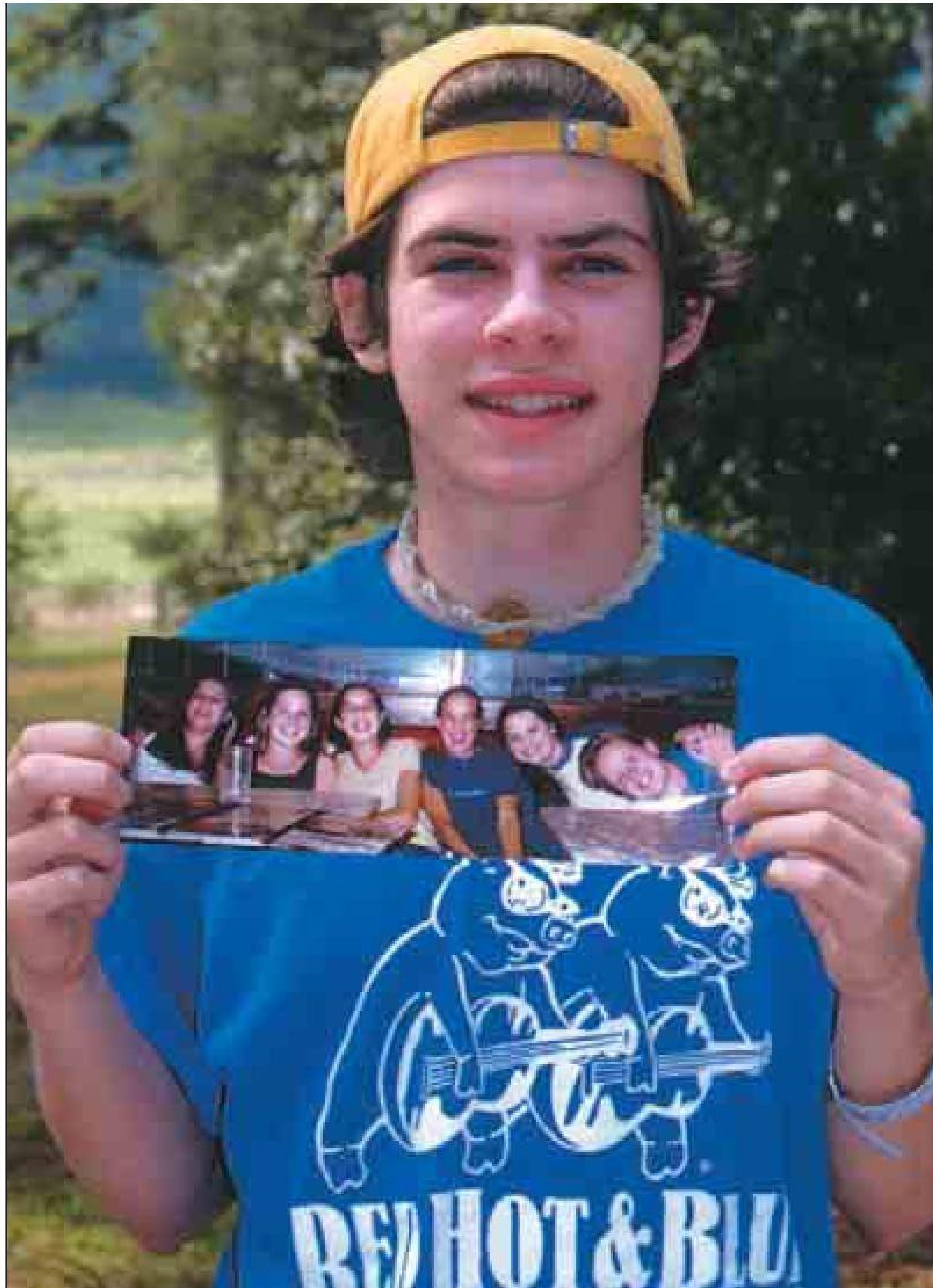
Elements of Product Planning for Goods and Services

For decades, 35mm cameras have been the photographic standard. The technical quality of the films is excellent. They capture subtle colors and offer sharp resolution. And there's a lot of choice among cameras for serious photographers who study all of the details. Unfortunately, this isn't enough to satisfy most amateur photographers. For them, one camera seems pretty much like another. Their snapshots often come out botched because of errors loading the film or the wrong light. Sometimes the shape of the picture just doesn't fit the subject. Or if there's one great picture and someone wants a reprint, the negative can't be found. These problems have been around for a long time. So to address them—and get new sales of films and cameras—Kodak and its four global rivals agreed on a new photo standard, the Advanced Photo System (APS).

When Kodak was ready to introduce its new Advantix brand APS film and cameras in 1996, it looked like a winning idea. A new film cartridge made it



place price promotion produc



easy to load the film. Photos could be shot in any of three sizes, including an extrawide format. The film adjusted for differences in light. And developed film came back protected in the cartridge. Reprints were easy to order too because a numbered proof sheet came with each set of prints. Customers liked these benefits. What they really wanted was good snapshots—so Advantix seemed worth the 15 percent higher price.

However, in its rush to beat rivals to market, Kodak ran into production problems. It could not get enough cameras to retailers. So the big ad campaign to build familiarity with the Advantix brand of film and cameras was wasted. Worse, because of a confusing package, many people bought Advantix film expecting it to work in a 35mm camera; it wouldn't. Initially, getting Advantix pictures developed was also a hassle. Retailers were slow to put money into new equipment to develop Advantix film; they waited to see if customers wanted it. And it added to consumer confusion that Fuji, Minolta, and other firms each had their own brand names for APS products.

By 1998, these problems were smoothing out. But sales were slow because too few consumers knew about Advantix. So Kodak relaunched the product. Kodak stuck with the Advantix name but used a new package design. Ads directly pitted Advantix against the problems with 35mm pictures, even though that risked eating into Kodak's 35mm sales. Camera giveaway promotions on the Kodak website (www.kodak.com) stirred interest too. And price-off discounts on three-roll packages got consumers to take more pictures. As demand grew, retailers also gave

Advantix more attention. For example, Wal-Mart put Kodak's $50 camera on special display. And many photo labs offered consumers a money-back guarantee on any Advantix prints that were not completely satisfactory.

For many customers in the target market, Kodak's Advantix line offers new benefits that they couldn't get before. But it involves new products that are basically incremental to what Kodak was already selling and what customers were already buying. Digital cameras and pictures are a more revolutionary type of new product. Consumers who adopt them will change their picture-taking behavior, and, as Kodak knows, they'll certainly change their film-buying and film-processing behavior too. It won't happen overnight, but digital cameras will make traditional cameras obsolete. And in the process the competition that Kodak faces has already changed, in some cases dramatically. Take, for example, HP's DeskJet brand color printers. If you buy a digital camera, the odds are that you'll print out the pictures on a DeskJet, not on a Kodak printer. So just as Kodak is fighting for shelf space against low-price Fuji and dealer brands in the mature market for 35mm film, it is fighting new and very different competitors in the fast-growing market related to digital photography.[1]

The Product Area Involves Many Strategy Decisions

The Kodak case highlights some important topics we'll discuss in this chapter and the next. Here we'll start by looking at how customers see a firm's product. Then we'll talk about product classes to help you better understand marketing strategy planning. We'll also talk about branding, packaging, and warranties. In summary, as shown in Exhibit 9-1, there are many strategy decisions related to the Product area.

What Is a Product?

Customers buy satisfaction, not parts

When Volkswagen sells a new Beetle, is it just selling a certain number of nuts and bolts, some sheet metal, an engine, and four wheels?

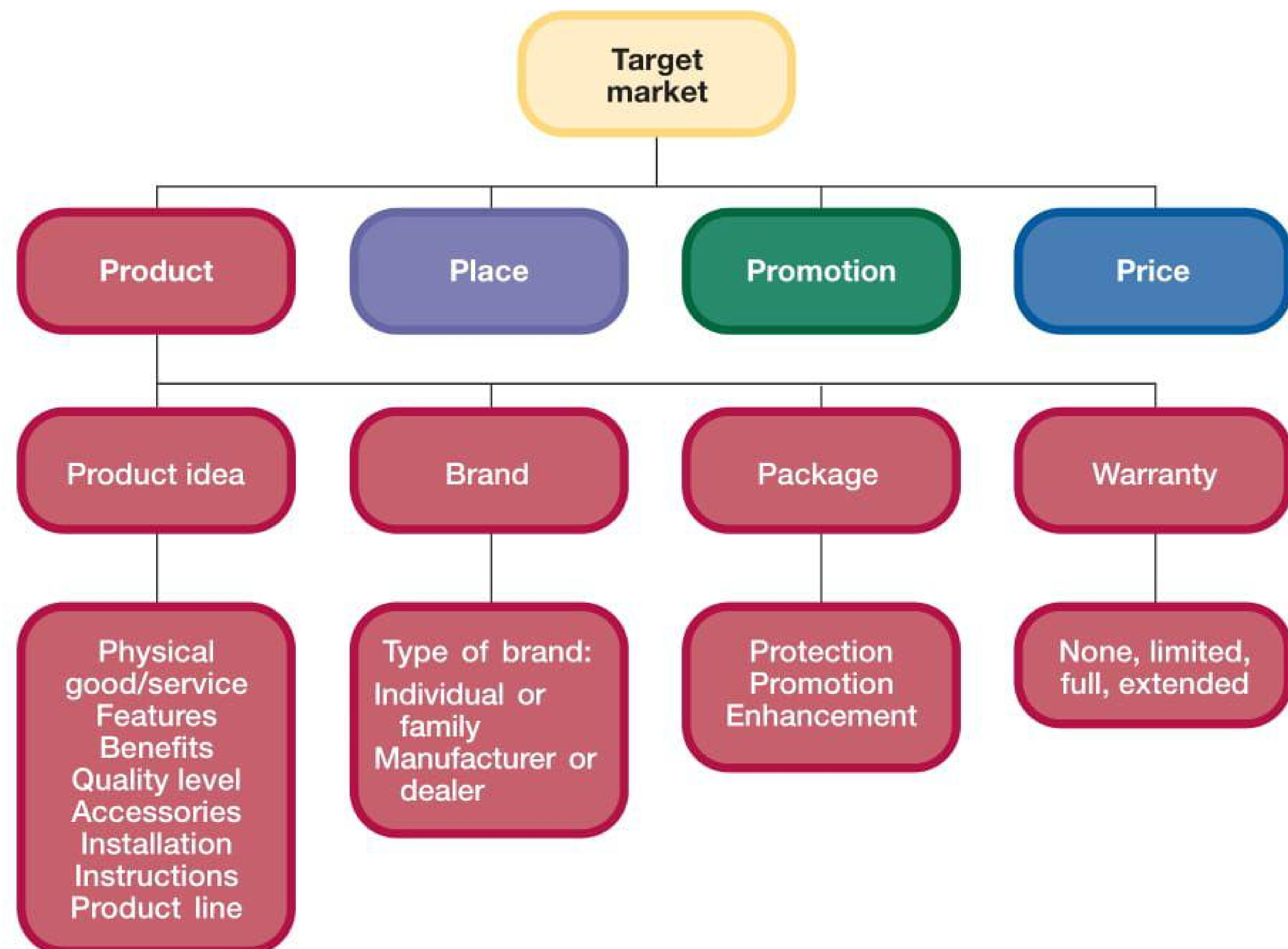
When Air Jamaica sells a ticket for a flight to the Caribbean, is it just selling so much wear and tear on an airplane and so much pilot fatigue?

The answer to these questions is *no*. Instead, what these companies are really selling is the satisfaction, use, or benefit the customer wants.

All consumers care about is that their new Beetles look cute and keep running. And when they take a trip on Air Jamaica, they really don't care how hard it is on the plane or the crew. They just want a safe, comfortable trip. In the same way, when producers and middlemen buy a product, they're interested in the profit they can make from its purchase—through use or resale.

Product means the need-satisfying offering of a firm. The idea of "Product" as potential customer satisfaction or benefits is very important. Many business managers get wrapped up in the technical details involved in producing a product. But that's not how most customers view the product. Most customers think about a product in terms of the total satisfaction it provides. That satisfaction may require a "total" product offering that is really a combination of excellent service, a physical

Exhibit 9-1
Strategy Planning for Product



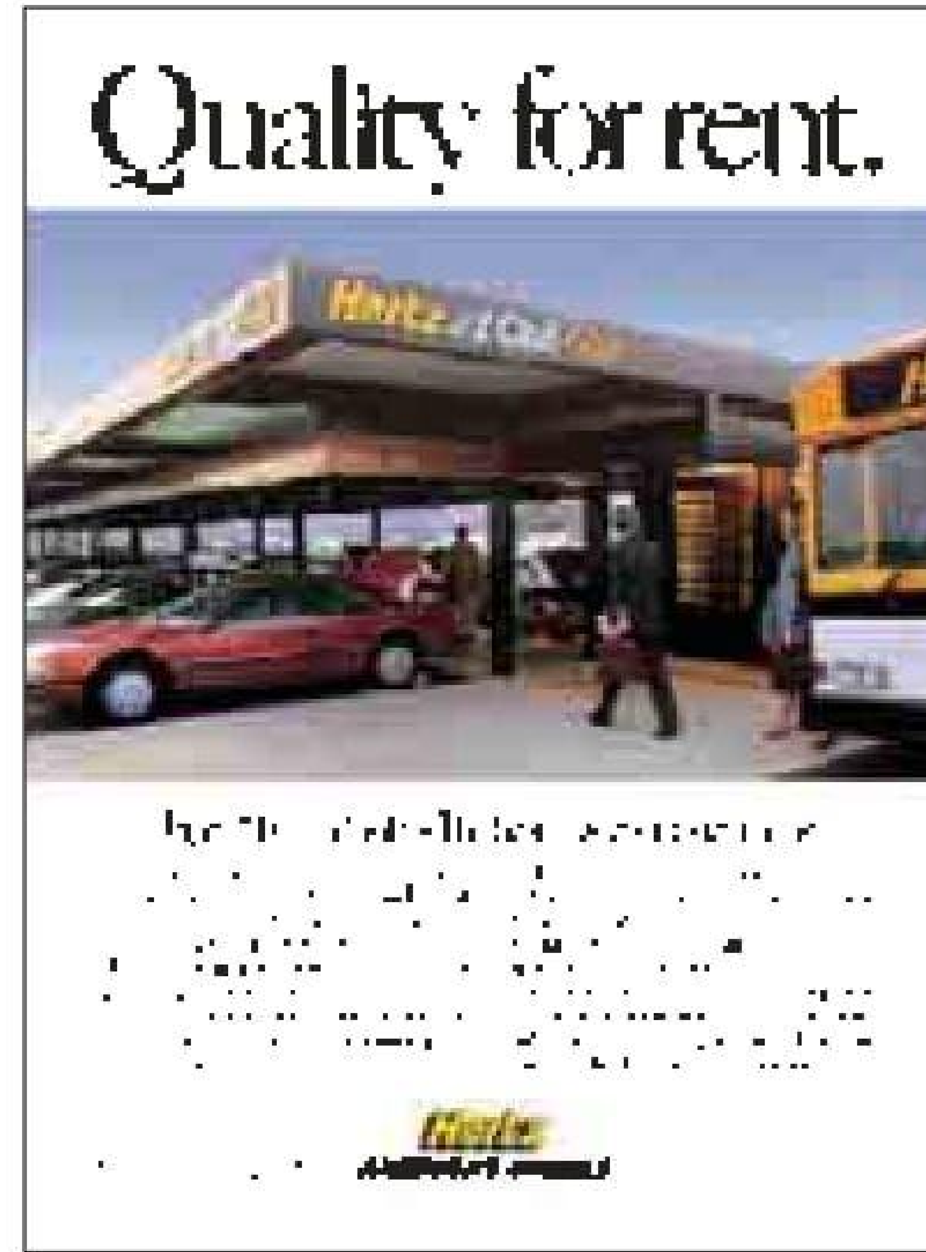
good with the right features, useful instructions, a convenient package, a trustworthy warranty, and perhaps even a familiar name that has satisfied the consumer in the past.

Product quality and customer needs

Product quality should also be determined by how customers view the product. From a marketing perspective, **quality** means a product's ability to satisfy a customer's needs or requirements. This definition focuses on the customer—and how the customer thinks a product will fit some purpose. For example, the "best" satellite TV service may not be the one with the highest number of channels but the one that includes a local channel that a consumer wants to watch. Similarly, the best-quality clothing for casual wear on campus may be a pair of jeans, not a pair of dress slacks made of a higher-grade fabric.

To better satisfy its customers' needs and make traveling more enjoyable, this French railroad's service includes door-to-door delivery of the passenger's luggage. The ad says "your luggage is old enough to travel by itself. It's up to us to ensure you'd rather go by train."

Because customers buy satisfaction, not just parts, marketing managers must be constantly concerned with the product quality of their goods and services.



Among different types of jeans, the one with the strongest stitching and the most comfortable or durable fabric might be thought of as having the highest grade or *relative quality* for its product type. Marketing managers often focus on relative quality when comparing their products to competitors' offerings. However, a product with better features is not a high-quality product if the features aren't what the target market wants.

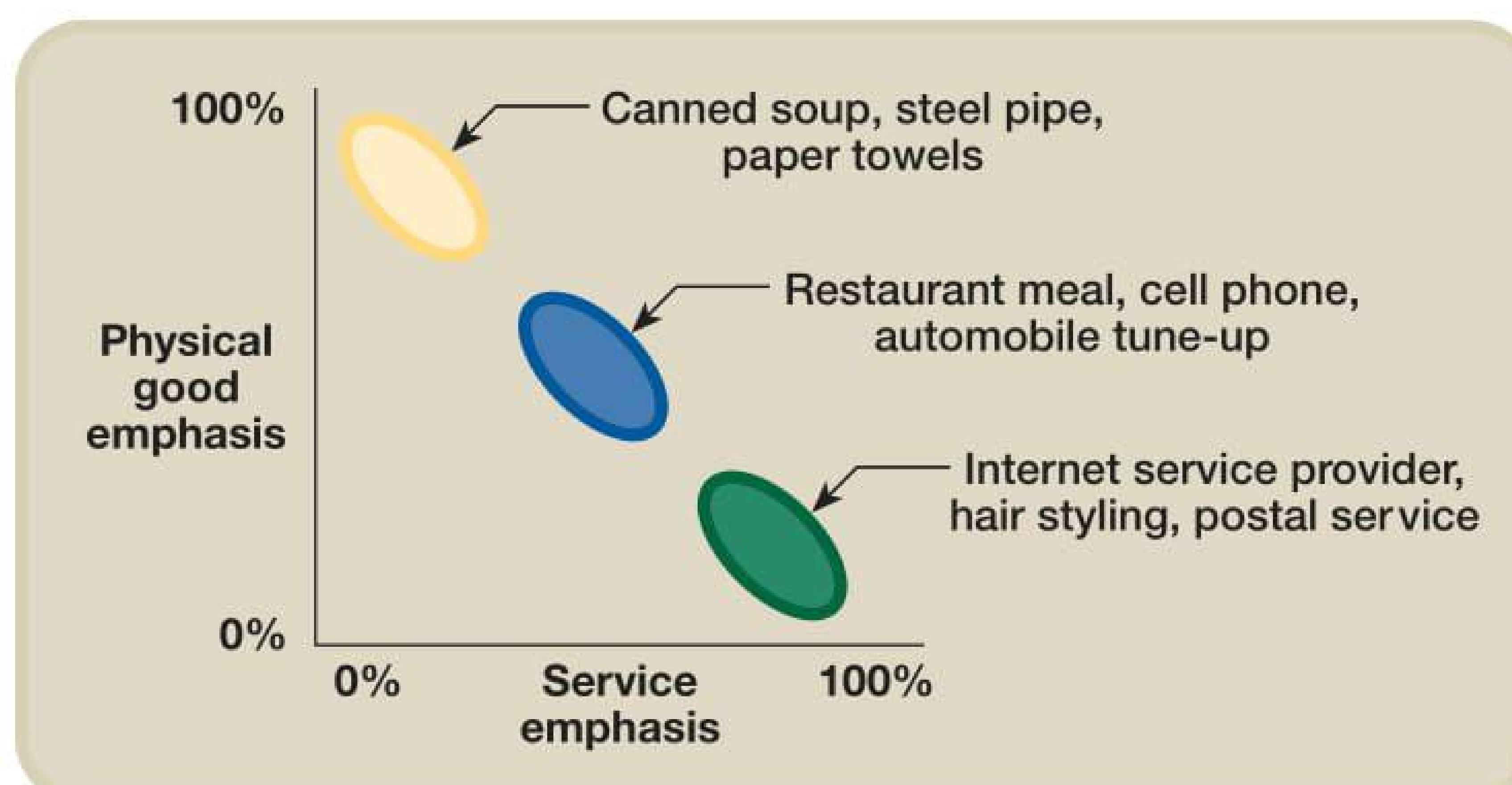
Quality and satisfaction depend on the total product offering. If potato chips get stale on the shelf because of poor packaging, the consumer will be dissatisfied. A broken button on a shirt will disappoint the customer—even if the laundry did a nice job cleaning and pressing the collar. A full-featured TiVo digital video recorder is a poor-quality product if it's hard for a consumer to program a recording session.[2]

Goods and/or services are the product

You already know that a product may be a physical *good* or a *service* or a *blend* of both. Yet, it's too easy to slip into a limited, physical-product point of view. We want to think of a product in terms of the needs it satisfies. If a firm's objective is to satisfy customer needs, service can be part of its product—or service alone may *be* the product—and must be provided as part of a total marketing mix.

Exhibit 9-2 shows this bigger view of Product. It shows that a product can range from a 100 percent emphasis on physical goods—for commodities like steel pipe—to a 100 percent emphasis on service, like dial-up Internet access from EarthLink. Regardless of the emphasis involved, the marketing manager must

Exhibit 9-2
Examples of Possible Blends of Physical Goods and Services in a Product



consider most of the same elements in planning products and marketing mixes. Given this, we usually won't make a distinction between goods and services but will call all of them *Products*. Sometimes, however, understanding the differences in goods and services can help fine tune marketing strategy planning. So let's look at some of these differences next.

Differences in Goods and Services

How tangible is the Product?

Because a good is a physical thing, it can be seen and touched. You can try on a pair of Timberland shoes, thumb through the latest issue of *Rolling Stone* magazine, or smell Colombian coffee as it brews. A good is a *tangible* item. When you buy it, you own it. And it's usually pretty easy to see exactly what you'll get.

On the other hand, a **service** is a deed performed by one party for another. When you provide a customer with a service, the customer can't keep it. Rather, a service is experienced, used, or consumed. You go see a DreamWorks Pictures movie, but afterward all you have is a memory. You ride on a ski lift in the Alps, but you don't own the equipment. Services are not physical—they are *intangible*. You can't "hold" a service. And it may be hard to know exactly what you'll get when you buy it.

Most products are a combination of tangible and intangible elements. Shell gas and the credit card to buy it are tangible—the credit the card grants is not. A Domino's pizza is tangible, but the fast home delivery is not.

Is the product produced before it's sold?

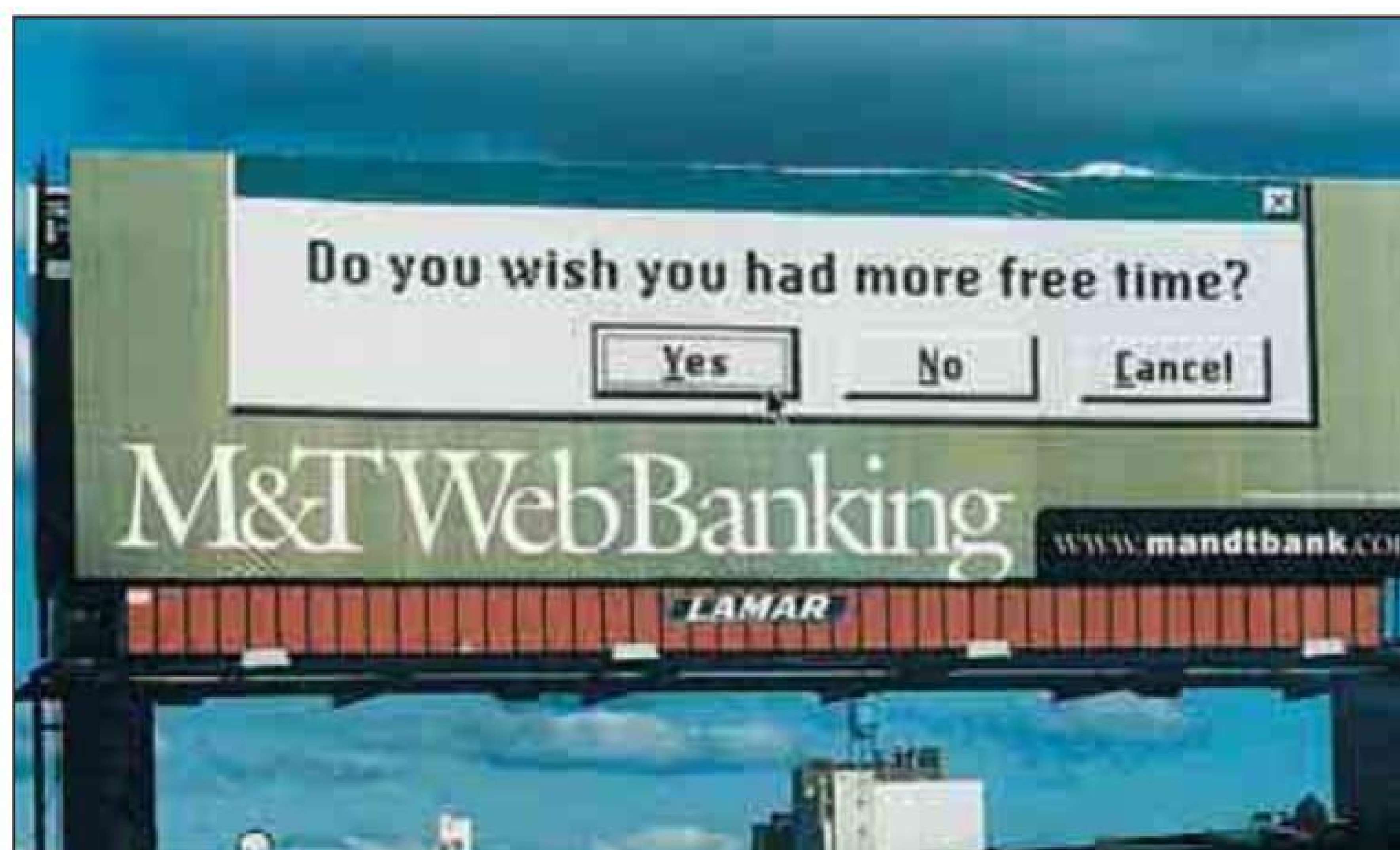
Goods are usually produced in a factory and then sold. A Magnavox TV may be stored in a warehouse or store waiting for a buyer. By contrast, services are often sold first, then produced. And they're produced and consumed in the same time frame. Thus, goods producers may be far away from the customer, but service providers often work in the customer's presence.

A worker in a Magnavox TV factory can be in a bad mood—and customers will never know. But a rude bank teller can drive customers away.

Services can't be stored or transported

Services are perishable—they can't be stored. This makes it harder to balance supply and demand. An example explains the problem.

MCI sells long-distance telephone services. Even when demand is high—during peak business hours or on Mother's Day—customers expect the service to be available. They don't want to hear "Sorry, all lines are busy." So MCI must have enough equipment and employees to deal with peak demand times. But when customers aren't making many calls, MCI's facilities are idle. MCI might be able to save money



Providing consistent, high-quality service is a challenge, so many firms are using technology to make it easier and quicker for customers to get the services they want by themselves.

© The McGraw−Hill Companies, 2002

At companies like 3M, managers must develop marketing plans for individual products that are consistent with the marketing program for the whole product assortment.

with less capacity (equipment and people), but then it will sometimes have to face dissatisfied customers.

It's often difficult to have economies of scale when the product emphasis is on service. Services can't be produced in large, economical quantities and then transported to customers. In addition, *services often have to be produced in the presence of the customer.* So service suppliers often need duplicate equipment and staff at places where the service is actually provided. Merrill Lynch sells investment advice along with financial products worldwide. That advice could, perhaps, be produced more economically in a single building in New York City and made available only on its website. But Merrill Lynch has offices all over the world. Many customers want a personal touch from the stockbroker telling them how to invest their money.[3]

Think about the whole Product

Providing the right product—when and where and how the customer wants it—is a challenge. This is true whether the product is primarily a service, primarily a good, or as is usually the case, a blend of both. Marketing managers must think about the "whole" Product they provide, and then make sure that all of the elements fit together and work with the rest of the marketing strategy. Sometimes a single product isn't enough to meet the needs of target customers. Then assortments of different products may be required.

Whole Product Lines Must Be Developed Too

A **product assortment** is the set of all product lines and individual products that a firm sells. A **product line** is a set of individual products that are closely related. The seller may see the products in a line as related because they're produced and/or operate in a similar way, sold to the same target market, sold through the same types of outlets, or priced at about the same level. Sara Lee, for example, has many product lines in its product assortment—including coffee, tea, luncheon meats, desserts, snacks, hosiery, sportswear, lingerie, and shoe polish. But Enterprise has one product line—different types of vehicles to rent. An **individual product** is a particular product within a product line. It usually is differentiated by brand, level of service offered, price, or some other characteristic. For example, each size and flavor of a

Some items in Bridgestone's line of tire products sell as consumer products, others sell as business products, and some are both. However, when different target markets are involved the rest of the marketing mix may also need to be different.

brand of soap is an individual product. Middlemen usually think of each separate product as a stock-keeping unit (sku) and assign it a unique sku number.

Each individual product and target market may require a separate strategy. For example, Sara Lee's strategy for selling tea in England is different from its strategy for selling men's underwear in the United States. We'll focus mainly on developing one marketing strategy at a time. But remember that a marketing manager may have to plan *several* strategies to develop an effective marketing program for a whole company.

Product Classes Help Plan Marketing Strategies

You don't have to treat *every* product as unique when planning strategies. Some product classes require similar marketing mixes. These product classes are a useful starting point for developing marketing mixes for new products and evaluating present mixes.

Product classes start with type of customer

All products fit into one of two broad groups—based on the type of customer that will use them. **Consumer products** are products meant for the final consumer. **Business products** are products meant for use in producing other products. The same product—like Bertolli Olive Oil—*might* be in both groups. Consumers buy it to use in their own kitchens, but food processing companies and restaurants buy it in large quantities as an ingredient in the products they sell. Selling the same product to both final consumers and business customers requires (at least) two different strategies.

There are product classes within each group. Consumer product classes are based on *how consumers think about and shop for products*. Business product classes are based on *how buyers think about products and how they'll be used*.

Consumer Product Classes

Consumer product classes divide into four groups: (1) convenience, (2) shopping, (3) specialty, and (4) unsought. *Each class is based on the way people buy products.* See Exhibit 9-3 for a summary of how these product classes relate to marketing mixes.[4]

Convenience products—purchased quickly with little effort

Convenience products are products a consumer needs but isn't willing to spend much time or effort shopping for. These products are bought often, require little service or selling, don't cost much, and may even be bought by habit. A convenience product may be a staple, impulse product, or emergency product.

Exhibit 9-3 Consumer Product Classes and Marketing Mix Planning

Consumer Product Class	Marketing Mix Considerations	Consumer Behavior
Convenience products		
Staples	Maximum exposure with widespread, low-cost distribution; mass selling by producer; usually low price; branding is important.	Routinized (habitual), low effort, frequent purchases; low involvement.
Impulse	Widespread distribution with display at point of purchase	Unplanned purchases bought quickly.
Emergency	Need widespread distribution near probable point of need; price sensitivity low.	Purchase made with time pressure when a need is great.
Shopping products		
Homogeneous	Need enough exposure to facilitate price comparison; price sensitivity high.	Customers see little difference among alternatives, seek lowest price.
Heterogeneous	Need distribution near similar products; promotion (including personal selling) to highlight product advantages; less price sensitivity.	Extensive problem solving; consumer may need help in making a decision (salesperson, website, etc.).
Specialty products	Price sensitivity is likely to be low; limited distribution may be acceptable, but should be treated as a convenience or shopping product (in whichever category product would typically be included) to reach persons not yet sold on its specialty product status.	Willing to expend effort to get specific product, even if not necessary; strong preferences make it an important purchase; Internet becoming important information source.
Unsought products		
New unsought	Must be available in places where similar (or related) products are sought; needs attention-getting promotion.	Need for product not strongly felt; unaware of benefits or not yet gone through adoption process.
Regularly unsought	Requires very aggressive promotion, usually personal selling.	Aware of product but not interested; attitude toward product may even be negative.

Staples are products that are bought often, routinely, and without much thought—like breakfast cereal, canned soup, and most other packaged foods used almost every day in almost every household.

Impulse products are products that are bought quickly—as *unplanned* purchases—because of a strongly felt need. True impulse products are items that the customer hadn't planned to buy, decides to buy on sight, may have bought the same way many times before, and wants right now. If the buyer doesn't see an impulse product at the right time, the sale may be lost.[5]

Emergency products are products that are purchased immediately when the need is great. The customer doesn't have time to shop around when a traffic accident occurs, a thunderstorm begins, or an impromptu party starts. The price of the ambulance service, raincoat, or ice cubes won't be important.

Shopping products—are compared

Shopping products are products that a customer feels are worth the time and effort to compare with competing products. Shopping products can be divided into two types, depending on what customers are comparing: (1) homogeneous or (2) heterogeneous shopping products.

Homogeneous shopping products are shopping products the customer sees as basically the same and wants at the lowest price. Some consumers feel that certain sizes and types of computers, television sets, washing machines, and even cars are very similar. So they shop for the best price. For some products, the Internet has become a way to do that quickly.

© The McGraw–Hill Companies, 2002

Many consumers shop for plates and other tableware as if they were homogeneous products, but Crate & Barrel wants customers to see its distinctive offerings as heterogeneous shopping products, or perhaps even specialty items.

Firms may try to emphasize and promote their product differences to avoid head-to-head price competition. For example, EarthLink says that with its dial-up Internet service you get fewer busy signals and lost connections. But if consumers don't think the differences are real or important in terms of the value they seek, they'll just look at price.

Heterogeneous shopping products are shopping products the customer sees as different and wants to inspect for quality and suitability. Furniture, clothing, and membership in a spa are good examples. Often the consumer expects help from a knowledgeable salesperson. Quality and style matter more than price. In fact, once the customer finds the right product, price may not matter at all—as long as it's reasonable. For example, you may have asked a friend to recommend a good dentist without even asking what the dentist charges.

Branding may be less important for heterogeneous shopping products. The more consumers compare price and quality, the less they rely on brand names or labels. Some retailers carry competing brands so consumers won't go to a competitor to compare items.

Specialty products—no substitutes please!

Specialty products are consumer products that the customer really wants and makes a special effort to find. Shopping for a specialty product doesn't mean comparing—the buyer wants that special product and is willing to search for it. It's the customer's *willingness to search*—not the extent of searching—that makes it a specialty product.

Any branded product that consumers insist on by name is a specialty product. Marketing managers want customers to see their products as specialty products and ask for them over and over again. Building that kind of relationship isn't easy. It means satisfying the customer every time. However, that's easier and a lot less costly than trying to win back dissatisfied customers or attract new customers who are not seeking the product at all.

Unsought products—need promotion

Unsought products are products that potential customers don't yet want or know they can buy. So they don't search for them at all. In fact, consumers probably won't buy these products if they see them—unless Promotion can show their value.

There are two types of unsought products. **New unsought products** are products offering really new ideas that potential customers don't know about yet. Informative promotion can help convince customers to accept the product, ending its unsought status. Dannon's yogurt, Litton's microwave ovens, and Netscape's browser are all popular items now, but initially they were new unsought products.

Regularly unsought products are products—like gravestones, life insurance, and encyclopedias—that stay unsought but not unbought forever. There may be a need, but potential customers aren't motivated to satisfy it. For this kind of product, personal selling is *very* important.

Many nonprofit organizations try to "sell" their unsought products. For example, the Red Cross regularly holds blood drives to remind prospective donors of how important it is to give blood.

One product may be seen several ways

We've been looking at product classes one at a time. But the same product might be seen in different ways by different target markets at the same time. For example, a product viewed as a staple by most consumers in the United States, Canada, or some similar affluent country might be seen as a heterogeneous shopping product by consumers in another country. The price might be much higher when considered as a proportion of the consumer's budget, and the available choices might be very different. Similarly, a convenient place to shop often means very different things in different countries. In Japan, for example, retail stores tend to be much smaller and carry smaller selections of products.

Business Products Are Different

Business product classes are also useful for developing marketing mixes—since business firms use a system of buying related to these product classes.

Before looking at business product differences, however, we'll note some important similarities that affect marketing strategy planning.

One demand derived from another

The big difference in the business products market is **derived demand**—the demand for business products derives from the demand for final consumer products. For example, car manufacturers buy about one-fifth of all steel products. But if demand for cars drops, they'll buy less steel. Then even the steel supplier with the best marketing mix is likely to lose sales.[6]

Price increases might not reduce quantity purchased

Total *industry* demand for business products is fairly inelastic. Business firms must buy what they need to produce their own products. Even if the cost of basic silicon doubles, for example, Intel needs it to make computer chips. The increased cost of the silicon won't have much effect on the price of the final computer or on the number of computers consumers demand. Sharp business buyers try to buy as economically as possible. So the demand facing *individual sellers* may be extremely elastic—if similar products are available at a lower price.

Tax treatment affects buying too

How a firm's accountants—and the tax laws—treat a purchase is also important to business customers. An **expense item** is a product whose total cost is treated as a

Businesses buy the goods and services they need to produce products for their own customers, so the demand for GE's special plastic resins, used to make lightweight and impact-resistant body panels, is derived from consumer demand for VW's unique car.

business expense in the year it's purchased. A **capital item** is a long-lasting product that can be used and depreciated for many years. Often it's very expensive. Customers pay for the capital item when they buy it, but for tax purposes the cost is spread over a number of years. This may reduce the cash available for other purchases.

Business Product Classes—How They Are Defined

Business product classes are based on how buyers see products and how the products will be used. The classes of business products are (1) installations, (2) accessories, (3) raw materials, (4) components, (5) supplies, and (6) professional services. Exhibit 9-4 relates these product classes to marketing mix planning.

Installations—a boom-or-bust business

Installations—such as buildings, land rights, and major equipment—are important capital items. One-of-a-kind installations—like office buildings and custom-made machines—generally require special negotiations for each sale. Standardized major equipment is treated more routinely. Even so, negotiations for installations often involve top management and can stretch over months or even years.

Installations are a boom-or-bust business. When sales are high, businesses want to expand capacity rapidly. And if the potential return on a new investment is very attractive, firms may accept any reasonable price. But during a downswing, buyers have little or no need for new installations and sales fall off sharply.[7]

Exhibit 9-4 Business Product Classes and Marketing Mix Planning

Business Product Classes	Marketing Mix Considerations	Buying Behavior
Installations	Usually requires skillful personal selling by producer, including technical contacts, and/or understanding of applications; leasing and specialized support services may be required.	Multiple buying influence (including top management) and new-task buying are common; infrequent purchase, long decision period, and boom-or-bust demand are typical.
Accessory equipment	Need fairly widespread distribution and numerous contacts by experienced and sometimes technically trained personnel; price competition is often intense, but quality is important.	Purchasing and operating personnel typically make decisions; shorter decision period than for installations; Internet sourcing.
Raw materials	Grading is important, and transportation and storing can be crucial because of seasonal production and/or perishable products; markets tend to be very competitive.	Long-term contract may be required to ensure supply; online auctions.
Component parts and materials	Product quality and delivery reliability are usually extremely important; negotiation and technical selling typical on less-standardized items; replacement after market may require different strategies.	Multiple buying influence is common; online competitive bids used to encourage competitive pricing.
Maintenance, repair, and operating (MRO) supplies	Typically require widespread distribution or fast delivery (repair items); arrangements with appropriate middlemen may be crucial.	Often handled as straight rebuys, except important operating supplies may be treated much more seriously and involve multiple buying influence.
Professional services	Services customized to buyer's need; personal selling very important; inelastic demand often supports high prices.	Customer may compare outside service with what internal people could provide; needs may be very specialized.

Business customers usually want a convenient and low-cost way to buy standard equipment and supplies, so many are now turning to vendors who sell over the Internet.

Specialized services are needed as part of the product

Suppliers sometimes include special services with an installation at no extra cost. A firm that sells (or leases) equipment to dentists, for example, may install it and help the dentist learn to use it.

Accessories—important but short-lived capital items

Accessories are short-lived capital items—tools and equipment used in production or office activities—like Canon's small copy machines, Rockwell's portable drills, and Steelcase's filing cabinets.

Since these products cost less and last a shorter time than installations, multiple buying influence is less important. Operating people and purchasing agents, rather than top managers, may make the purchase decision. As with installations, some customers may wish to lease or rent—to expense the cost.

Accessories are more standardized than installations. And they're usually needed by more customers. For example, IBM sells its robotics systems, which can cost over $2 million, as custom installations to large manufacturers. But IBM's Thinkpad computers are accessory equipment for just about every type of modern business all around the world.

Raw materials become part of a physical good

Raw materials are unprocessed expense items—such as logs, iron ore, wheat, and cotton—that are moved to the next production process with little handling. Unlike installations and accessories, *raw materials become part of a physical good and are expense items*.

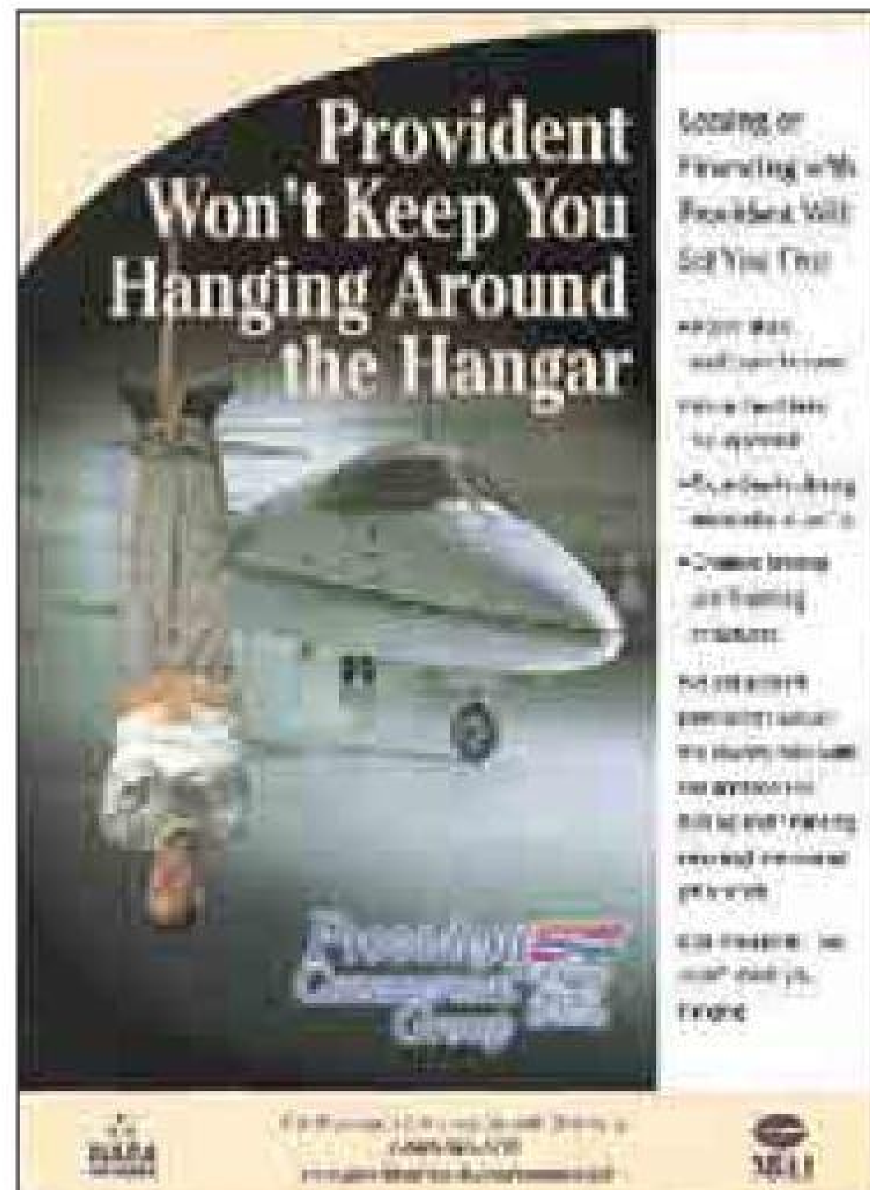
We can break raw materials into two types: (1) farm products and (2) natural products. **Farm products** are grown by farmers—examples are oranges, wheat, sugar cane, cattle, poultry, eggs, and milk. **Natural products** are products that occur in nature—such as fish and game, timber and maple syrup, and copper, zinc, iron ore, oil, and coal.

The need for grading is one of the important differences between raw materials and other business products. Nature produces what it will—and someone must sort and grade raw materials to satisfy various market segments. Top-graded fruits and vegetables may find their way into the consumer products market. Lower grades, which are treated as business products, are used in juices, sauces, and soups.

Most buyers of raw materials want ample supplies in the right grades for specific uses—fresh vegetables for Green Giant's production lines or logs for Weyerhaeuser's paper mills. To ensure steady quantities, raw materials customers often sign long-term contracts, sometimes at guaranteed prices.

Component parts and materials must meet specifications

Components are processed expense items that become part of a finished product. Component *parts* are finished (or nearly finished) items that are ready for assembly into the final product. ATI's graphics cards included in personal computers, TRW's



The ability to arrange a lease or good financial terms is often important in the purchase of a business aircraft or other capital installation. By contrast, component parts become part of a firm's product and are paid for when the expense occurs.

air bags in cars, and Briggs and Stratton's engines for lawn mowers are examples. Component *materials* are items such as wire, plastic, textiles, or cement. They have already been processed but must be processed further before becoming part of the final product. Since components become part of the firm's own product, quality is extremely important.

Components are often produced in large quantity to meet standard specifications. However, some components are custom-made. Then teamwork between the buyer and seller may be needed to arrive at the right specifications. So a buyer may find it attractive to develop a close partnership with a dependable supplier. And top management may be involved if the price is high or the component is extremely important to the final product. In contrast, standardized component materials are more likely to be purchased online using a competitive bidding system.

Since component parts go into finished products, a replacement market often develops. This *after market* can be both large and very profitable. Car tires and batteries are two examples of components originally sold in the *OEM (original equipment market)* that become consumer products in the after market. The target markets are different—and different marketing mixes are usually necessary.[8]

Supplies for maintenance, repair, and operations

Supplies are expense items that do not become part of a finished product. Buyers may treat these items less seriously. When a firm cuts its budget, orders for supplies may be the first to go. Supplies can be divided into three types: (1) maintenance, (2) repair, and (3) operating supplies—giving them their common name: MRO supplies.

Maintenance and small operating supplies are like convenience products. The item will be ordered because it is needed—but buyers won't spend much time on it. Branding may become important because it makes buying easier for such "nuisance" purchases. Breadth of assortment and the seller's dependability are also important. Middlemen usually handle the many supply items, and now they are often purchased via online catalog sites.[9]

If operating supplies are needed regularly, and in large amounts, they receive special treatment. Many companies buy coal and fuel oil in railroad-car quantities. Usually there are several sources for such commodity products—and large volumes may be purchased at global exchanges on the Internet.

Professional services—pay to get it done

Professional services are specialized services that support a firm's operations. They are usually expense items. Engineering or management consulting services can improve the plant layout or the company's efficiency. Information technology services can maintain a company's networks and websites. Design services can suggest a new look for products or promotion materials. Advertising agencies can help promote the firm's products. And food services can improve morale.

Here the *service* part of the product is emphasized. Goods may be supplied—as coffee and doughnuts are with food service—but the customer is primarily interested in the service.

Managers compare the cost of buying professional services outside the firm ("outsourcing") to the cost of having company people do them. For special skills needed only occasionally, an outsider can be the best source. Further, during the last decade, many firms have tried to cut costs by downsizing the number of people that they employ; in many cases, work that was previously done by an employee is now provided as a service by an independent supplier. Clearly, the number of service specialists is growing in our complex economy.

Branding Needs a Strategy Decision Too

There are so many brands—and we're so used to seeing them—that we take them for granted. But branding is an important decision area, so we will treat it in some detail.

What is branding?

Branding means the use of a name, term, symbol, or design—or a combination of these—to identify a product. It includes the use of brand names, trademarks, and practically all other means of product identification.

Brand name has a narrower meaning. A **brand name** is a word, letter, or a group of words or letters. Examples include America Online (AOL), WD-40, 3M Post-its, and PT Cruiser.

Trademark is a legal term. A **trademark** includes only those words, symbols, or marks that are legally registered for use by a single company. A **service mark** is the same as a trademark except that it refers to a service offering.

The word *Buick* can be used to explain these differences. The Buick car is branded under the brand name Buick (whether it's spoken or printed in any manner). When "Buick" is printed in a certain kind of script, however, it becomes a trademark. A trademark need not be attached to the product. It need not even be a word—it can be a symbol. Exhibit 9-5 shows some common trademarks.

These differences may seem technical. But they are very important to business firms that spend a lot of money to protect and promote their brands.

Brands meet needs

Well-recognized brands make shopping easier. Think of trying to buy groceries, for example, if you had to evaluate the advantages and disadvantages of each of 25,000 items every time you went to a supermarket. Many customers are willing to buy new things—but having gambled and won, they like to buy a sure thing the next time.

Brand promotion has advantages for branders as well as customers. A good brand reduces the marketer's selling time and effort. And sometimes a firm's brand name is the only element in its marketing mix that a competitor can't copy. Also, good brands can improve the company's image—speeding acceptance of new products marketed under the same name. For example, many consumers quickly tried

Exhibit 9-5
Recognized Trademarks and Symbols Help in Promotion

Starbucks' coffee-flavored Frappuccino beverage when it appeared on grocery store shelves because they already knew they liked Starbucks' coffee.[10]

Conditions Favorable to Branding

Can you recall a brand name for file folders, bed frames, electric extension cords, or nails? As these examples suggest, it's not always easy to establish a respected brand.

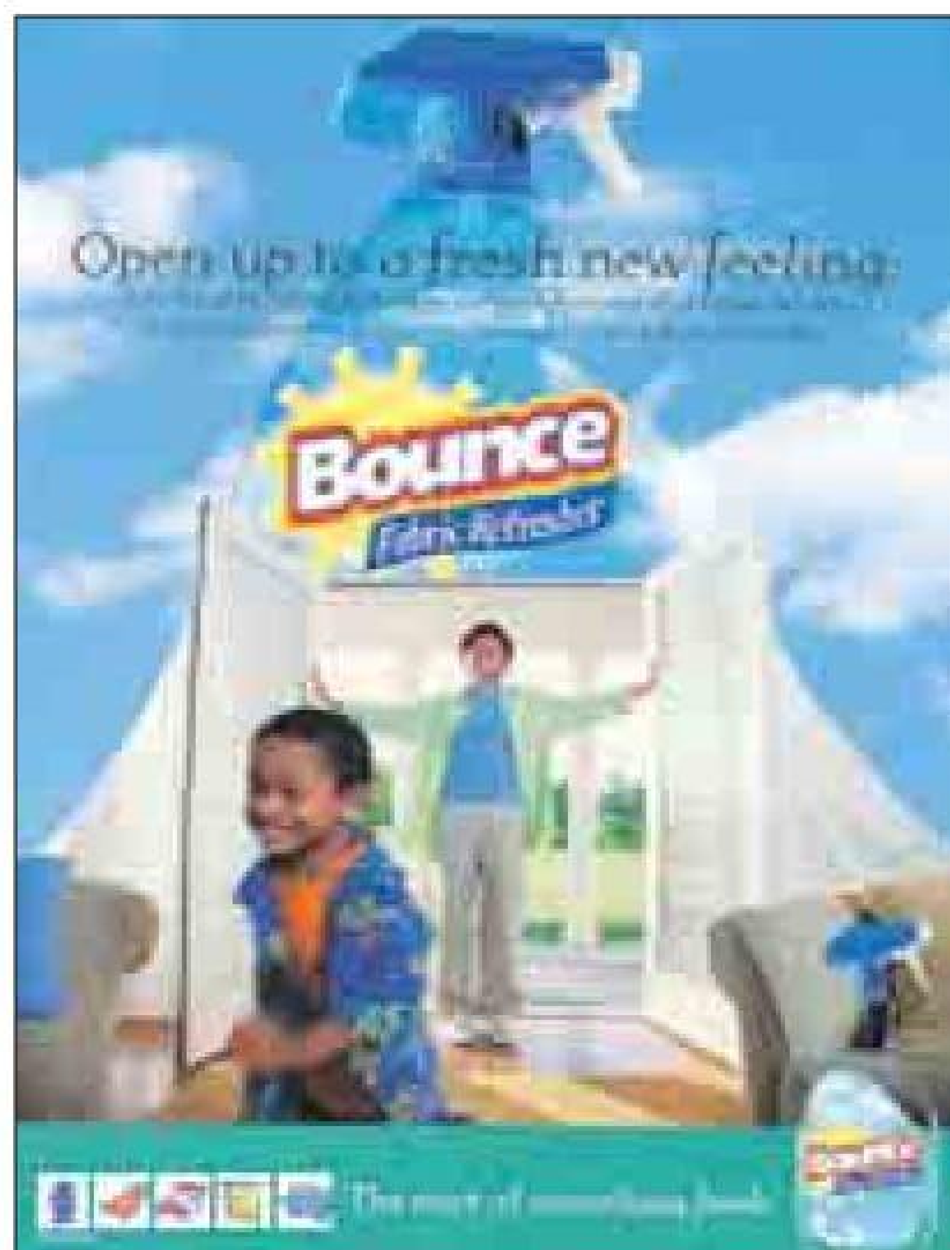
The following conditions are favorable to successful branding:

1. The product is easy to identify by brand or trademark.
2. The product quality is the best value for the price and the quality is easy to maintain.
3. Dependable and widespread availability is possible. When customers start using a brand, they want to be able to continue using it.
4. Demand is strong enough that the market price can be high enough to make the branding effort profitable.
5. There are economies of scale. If the branding is really successful, costs should drop and profits should increase.
6. Favorable shelf locations or display space in stores will help. This is something retailers can control when they brand their own products. Producers must use aggressive salespeople to get favorable positions.

In general, these conditions are less common in less-developed economies, and that may explain why efforts to build brands in less-developed nations often fail.

Achieving Brand Familiarity Is Not Easy

The earliest and most aggressive brand promoters in America were the patent medicine companies. They were joined by the food manufacturers, who grew in size after the Civil War. Some of the brands started in the 1860s and 1870s (and still



It takes time and money to build brand awareness, so sometimes brands can be extended. Both Bounce and Mr. Clean have recently introduced new products that benefit from their well-recognized brand names.

going strong) are Borden's Condensed Milk, Quaker Oats, Pillsbury's Best Flour, and Ivory Soap. Today, familiar brands exist for most product categories, ranging from crayons (Crayola) to real estate services (Century 21). However, what brand is familiar often varies from one country to another.

Brand acceptance must be earned with a good product and regular promotion. **Brand familiarity** means how well customers recognize and accept a company's brand. The degree of brand familiarity affects the planning for the rest of the marketing mix—especially where the product should be offered and what promotion is needed.

Five levels of brand familiarity

Five levels of brand familiarity are useful for strategy planning: (1) rejection, (2) nonrecognition, (3) recognition, (4) preference, and (5) insistence.

Some brands have been tried and found wanting. **Brand rejection** means that potential customers won't buy a brand unless its image is changed. Rejection may suggest a change in the product or perhaps only a shift to target customers who have a better image of the brand. Overcoming a negative image is difficult and can be very expensive.

Brand rejection is a big concern for service-oriented businesses because it's hard to control the quality of service. A business traveler who gets a dirty room in a Hilton Hotel in Caracas, Venezuela, might not return to a Hilton anywhere. Yet it's difficult for Hilton to ensure that every maid does a good job every time.

Some products are seen as basically the same. **Brand nonrecognition** means final consumers don't recognize a brand at all—even though middlemen may use the brand name for identification and inventory control. Examples include school supplies, inexpensive dinnerware, many of the items that you'd find in a hardware store, and thousands of dot-coms on the Internet.

Brand recognition means that customers remember the brand. This may not seem like much, but it can be a big advantage if there are many "nothing" brands on the market. Even if consumers can't recall the brand without help, they may be reminded when they see it in a store among other less familiar brands.

Most branders would like to win **brand preference**—which means that target customers usually choose the brand over other brands, perhaps because of habit or favorable past experience.

Brand insistence means customers insist on a firm's branded product and are willing to search for it. This is an objective of many target marketers.

Exhibit 9-6 Characteristics of a Good Brand Name

- Short and simple
- Easy to spell and read
- Easy to recognize and remember
- Easy to pronounce
- Can be pronounced in only one way
- Can be pronounced in all languages (for international markets)
- Suggestive of product benefits
- Adaptable to packaging/labeling needs
- No undesirable imagery
- Always timely (does not go out-of-date)
- Adaptable to any advertising medium
- Legally available for use (not in use by another firm)

The right brand name can help

A good brand name can help build brand familiarity. It can help tell something important about the company or its product. Exhibit 9-6 lists some characteristics of a good brand name. Some successful brand names seem to break all these rules, but many of them got started when there was less competition.

Companies that compete in international markets face a special problem in selecting brand names. A name that conveys a positive image in one language may be meaningless in another. Or, worse, it may have unintended meanings. GM's Nova car is a classic example. GM stuck with the Nova name when it introduced the car in South America. It seemed like a sensible decision because *nova* is the Spanish word for star. However, Nova also sounds the same as the Spanish words for "no go." Consumers weren't interested in a no-go car, and sales didn't pick up until GM changed the name.[11]

A respected name builds brand equity

Because it's costly to build brand recognition, some firms prefer to acquire established brands rather than try to build their own. The value of a brand to its current owner or to a firm that wants to buy it is sometimes called **brand equity**—the value of a brand's overall strength in the market. For example, brand equity is likely to be higher if many satisfied customers insist on buying the brand and if retailers are eager to stock it. That almost guarantees ongoing profits.

Traditional financial statements don't show brand equity or the future profit potential of having close relationships with a large base of satisfied customers. Perhaps they should. Having that information would prompt a lot of narrow-thinking finance managers to view marketing efforts as an investment, not just as an expense.

The financial value of the Yahoo brand name illustrates this point. In 1994, Yahoo was just a tiny start-up trying to make it with a directory site on the Internet. Most people had never heard the name, and for that matter few even knew what the Internet was or why you'd need a directory site. As interest in the Internet grew, Yahoo promoted its brand name, not just on the Internet but in traditional media like TV and magazines. It was often the only website name that newcomers to the web knew, so for many it was a good place from which to start their surfing. When they found the Yahoo site useful, they'd tell their friends—and that generated more familiarity with the name and more hits on the site. Within a few years—even before the Internet really took off—Yahoo was attracting 30 million different people a month and 95 million web page views a day. Since Yahoo's original marketing plan was to make money by charging fees to advertisers eager to reach the hordes of people who visit Yahoo's web pages, the familiarity of its brand translated directly into ad revenues. Because it attracted traffic and ad revenue, it could offer users more specialized content, better search capability, free e-mail, community offerings, and e-commerce. And now, in less than a decade, it's become one of the best known brands not only in cyberspace but in the world.[12]

www.mhhe.com/fourps

How to Blow Out a Relationship with Customers

There are few brand names that are more familiar to U.S. consumers than Firestone and Ford Explorer. Yet in the aftermath of tread separations on tires that resulted in many rollovers and tragic deaths, the reputations of these once lofty brand names are seriously tarnished. There are millions of consumers who say that they will never again buy any tire with the Firestone name on it. The Firestone brand may not survive. The plant where many of the unsafe tires were produced has already been shut down. What automaker would buy from that plant and risk its own image and sales. Tire retailers who sell replacement tires in the consumer market face similar reactions. It's easier for them to just sell Michelins, a brand that positions itself on safety benefits.

In part to protect its customers, Ford recalled millions of Firestone tires, including many designs that Firestone says are not a problem. Who should pay the cost? Unlike most of the components used in building a car, the tires are covered by a Firestone warranty, not by Ford's warranty. Responsibility is clearer in government recalls. But staff shortages at the National Highway Traffic Safety Administration contributed to delays in figuring out who was really at fault.

The long-standing relationship between Ford and Firestone is severed. Imagine how you would feel if you were Bill Ford, chairman of Ford. Firestone was his grandfather. That aside, questions about rollovers have eroded the brand equity of one of the best sellers in Ford's whole product line. Rebuilding profits won't be easy. With all the bad publicity customers are very concerned about rollover hazards of the Explorer. Even if a complete redesign would help reassure them, that's not an option. The new-product development process for a big change in the Explorer will take years.[13]

Protecting Brand Names and Trademarks

U.S. common law and civil law protect the rights of trademark and brand name owners. The **Lanham Act** (of 1946) spells out what kinds of marks (including brand names) can be protected and the exact method of protecting them. The law applies to goods shipped in interstate or foreign commerce.

The Lanham Act does not force registration. But registering under the Lanham Act is often a first step toward protecting a trademark to be used in international markets. That's because some nations require that a trademark be registered in its home country before they will register or protect it.

You must protect your own

A brand can be a real asset to a company. Each firm should try to see that its brand doesn't become a common descriptive term for its kind of product. When this happens, the brand name or trademark becomes public property—and the owner loses all rights to it. This happened with the names cellophane, aspirin, shredded wheat, and kerosene.[14]

Counterfeiting is accepted in some cultures

Even when products are properly registered, counterfeiters may make unauthorized copies. Many well-known brands—ranging from Levi's jeans to Rolex watches to Zantax ulcer medicine—face this problem. Counterfeiting is especially common in developing nations. In China, most videotapes and CDs are bootleg copies. Counterfeiting is big business in some countries, so efforts to stop it may meet with limited success. There are also differences in cultural values. In South Korea, for example, many people don't see counterfeiting as unethical.[15]

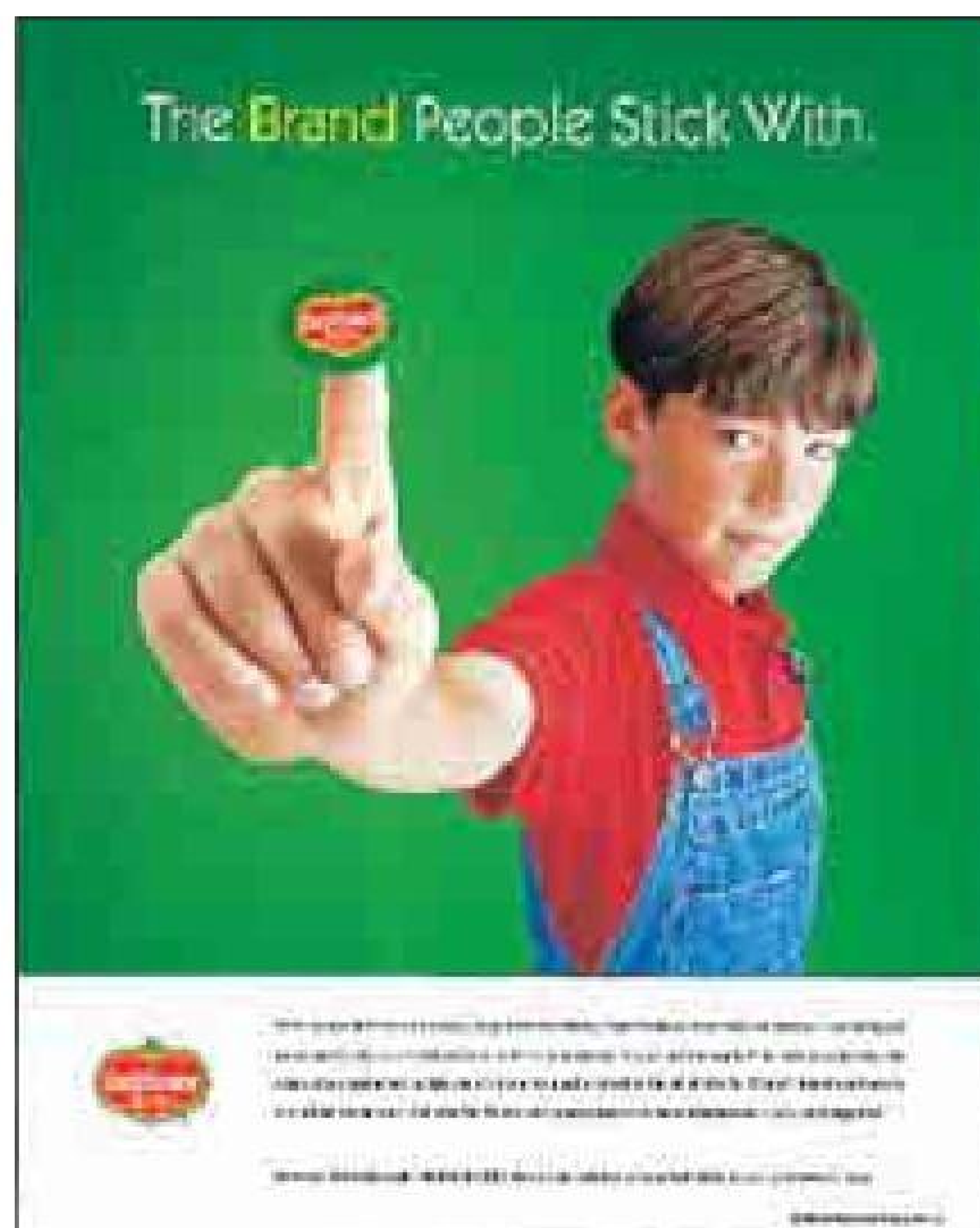
What Kind of Brand to Use?

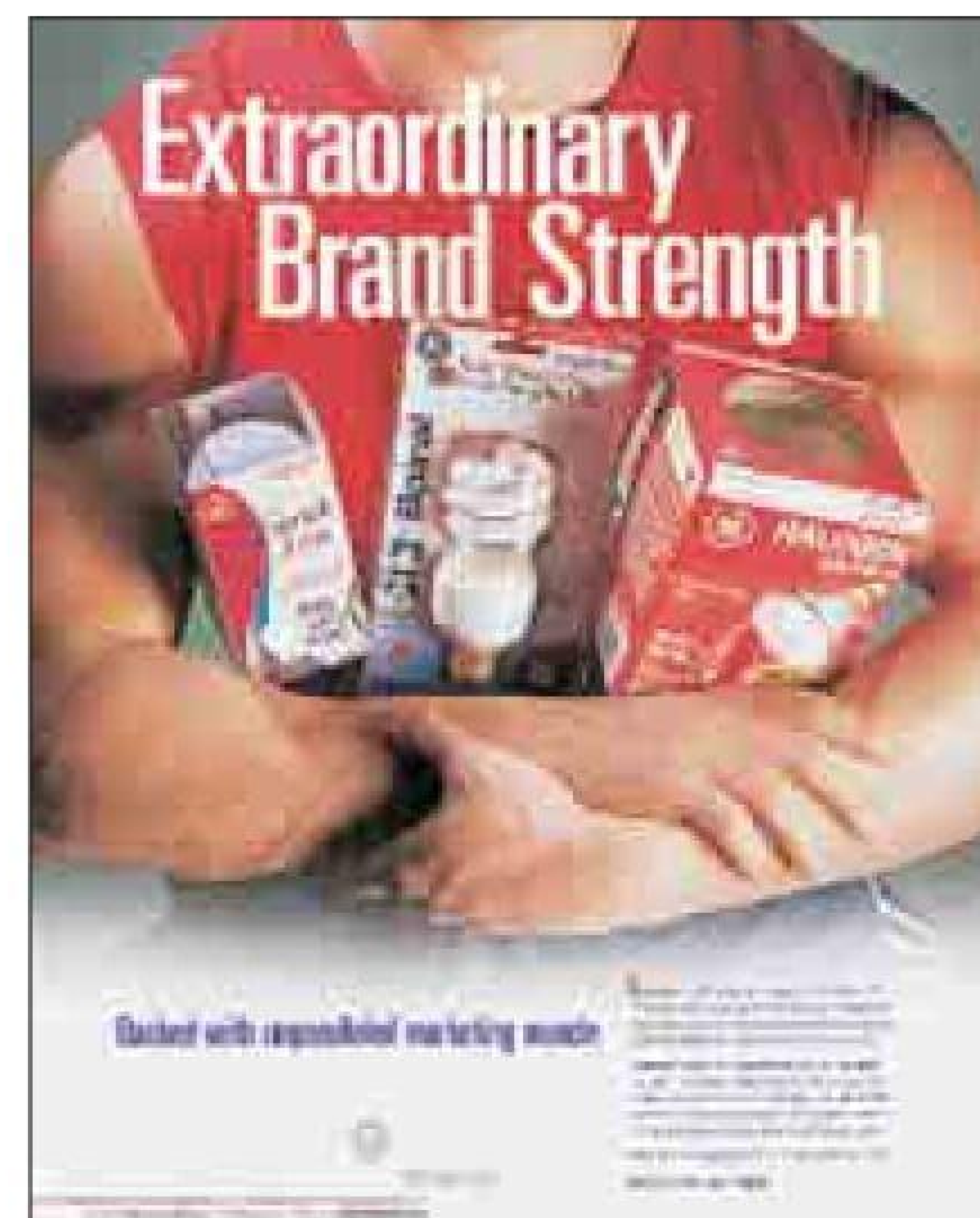
Keep it in the family

Branders of more than one product must decide whether they are going to use a **family brand**—the same brand name for several products—or individual brands for each product. Examples of family brands are Keebler snack food products and Sears' Kenmore appliances.

The use of the same brand for many products makes sense if all are similar in type and quality. The main benefit is that the goodwill attached to one or two

As these trade ads suggest, both Del Monte and GE want retailers to remember that many consumers already know and trust their brand names.





products may help the others. Money spent to promote the brand name benefits more than one product, which cuts promotion costs for each product.

A special kind of family brand is a **licensed brand**—a well-known brand that sellers pay a fee to use. For example, the familiar Sunkist brand name has been licensed to many companies for use on more than 400 products in 30 countries.[16]

Individual brands for outside and inside competition

A company uses **individual brands**—separate brand names for each product—when it's important for the products to each have a separate identity, as when products vary in quality or type.

If the products are really different, such as Elmer's glue and Borden's ice cream, individual brands can avoid confusion. Some firms use individual brands with similar products to make segmentation and positioning efforts easier. Unilever, for example, markets Aim, Close-Up, and Pepsodent toothpastes, but each involves different positioning efforts.

Internet

Internet Exercise Go to the Procter & Gamble website (www.pg.com) and click on *Product List and Info* and then on *Beauty Care.* Find out the brand names of the different shampoos that P&G makes. How are the different brands positioned, and what target markets do they appeal to?

Sometimes firms use individual brands to encourage competition within the company. Each brand is managed by a different group within the firm. They argue that if anyone is going to take business away from their firm, it ought to be their own brand. However, many firms that once used this approach have reorganized. Faced with slower market growth, they found they had plenty of competitive pressure from other firms. The internal competition just made it more difficult to coordinate different marketing strategies.[17]

Generic "brands"

Products that some consumers see as commodities may be difficult or expensive to brand. Some manufacturers and middlemen have responded to this problem with **generic products**—products that have no brand at all other than identification of their contents and the manufacturer or middleman. Generic products are usually offered in plain packages at lower prices. They are quite common in less-developed nations.[18]

Who Should Do the Branding?

Manufacturer brands versus dealer brands

Manufacturer brands are brands created by producers. These are sometimes called *national brands* because the brand is promoted all across the country or in large regions. Note, however, that many manufacturer brands are now distributed globally. Such brands include Nabisco, Campbell's, Whirlpool, Ford, and IBM. Many creators of service-oriented firms—like McDonald's, Orkin Pest Control, and Midas Muffler—promote their brands this way too.

Dealer brands, also called **private brands,** are brands created by middlemen. Examples of dealer brands include the brands of Kroger, Ace Hardware, Radio Shack, Wal-Mart, and Sears. Some of these are advertised and distributed more widely than many national brands. For example, national TV ads have helped Original Arizona Jeans (by JCPenney) and Canyon River Blues (by Sears) compete with Levi's and Wrangler.

From the middleman's perspective, the major advantage of selling a popular manufacturer brand is that the product is already presold to some target customers. Such products may bring in new customers and can encourage higher turnover with reduced selling cost. The major disadvantage is that manufacturers normally offer lower gross margins than the middleman might be able to earn with a dealer brand. In addition, the manufacturer maintains control of the brand and may withdraw it from a middleman at any time. Customers, loyal to the brand rather than to the retailer or wholesaler, may go elsewhere if the brand is not available.

Dealer branders take on more responsibility. They must promote their own product. They must be able to arrange a dependable source of supply and usually have to buy in fairly large quantities. This increases their risk and cost of carrying inventory. However, these problems are easier to overcome if the middleman deals in a large sales volume, as is the case with many large retail chains.

Who's winning the battle of the brands?

The **battle of the brands,** the competition between dealer brands and manufacturer brands, is just a question of whose brands will be more popular and who will be in control.

At one time, manufacturer brands were much more popular than dealer brands. Now sales of both kinds of brands are about equal—but sales of dealer brands are expected to continue growing. Middlemen have some advantages in this battle. With the number of large wholesalers and retail chains growing, they are better able to arrange reliable sources of supply at low cost. They can also control the point of sale and give the dealer brand special shelf position or promotion.

Innovative packaging turns Yoplait Go-Gurt into an on-the-go yogurt snack for kids and makes Colombo yogurt more convenient (with its spoon-in-lid feature).

Exhibit 9-7 Some Ways Packaging Benefits Consumers and Marketers

Opportunity to Add Value	Some Decision Factors	Examples
Promotion	Link product to promotion	The bunny on the Energizer battery package is a reminder that it "keeps going and going."
	Branding at point of purchase or consumption	Coke's logo greets almost everyone each time the refrigerator is opened.
	Product information	Kraft's nutrition label helps consumers decide which cheese to buy, and a UPC code reduces checkout time and errors.
Protection	For shipping and storing	Sony's MP3 player is kept safe by Styrofoam inserts.
	From spoiling	Tylenol's safety seal prevents tampering.
	From shoplifting	Cardboard hang-tag on Gillette razor blades is too large to hide in hand.
Enhance product	The environment	Tide detergent bottle can be recycled.
	Convenience in use	Squeezable tube of Yoplait Go-Gurt is easy to eat on the go and in new situations.
	Added product functions	Plastic tub is useful for refrigerator leftovers after the Cool Whip is gone.

Consumers benefit from the battle. Competition has already narrowed price differences between manufacturer brands and well-known dealer brands. And big retailers like Wal-Mart are constantly pushing manufacturers to lower prices—because national brands at low prices bring in even more customers than store brands.[19]

The Strategic Importance of Packaging

Packaging involves promoting, protecting, and enhancing the product. Packaging can be important to both sellers and customers. See Exhibit 9-7. It can make a product more convenient to use or store. It can prevent spoiling or damage. Good packaging makes products easier to identify and promotes the brand at the point of purchase and even in use.

Packaging can enhance the product

A new package can make *the* important difference in a new marketing strategy—by meeting customers' needs better. Sometimes a new package makes the product easier or safer to use. For example, Quaker State oil comes with a twist-off top and pouring spout to make it more convenient for customers at self-service gas stations. And most drug and food products now have special seals to prevent product tampering.

Clever packaging is an important part of an effort by Dean's Foods to pump new life into an old product—milk. Just as Bird's Eye did with frozen vegetables, Dean wants to make milk something more than a cheap commodity. Dean is selling six-packs of chocolate-flavored milk in bottles called chugs—lightweight plastic bottles designed like old-fashioned milk bottles with a wide mouth, but with resealable twist-off caps. The shape of the new package also helps

Dean get distribution in convenience stores and vending machines. Of course, storing milk for long or shipping it large distances is still a problem because milk is perishable. But Dean is working on packaging technology that will keep milk fresh for 60 days. For now, Dean is introducing a blue-ice freezer pack that keeps a six-pack of milk cold so people can take it to work or school. The package is also the focus of an ad campaign that positions the new product as hip. The ad shows a chug of milk in a back jeans pocket with the tagline, "Milk where you want it."[20]

Packaging sends a message

Packaging can tie the product to the rest of the marketing strategy. Packaging for Energizer batteries features the pink bunny seen in attention-getting TV ads and reminds consumers that the batteries are durable. A good package sometimes gives a firm more promotion effect than it could get with advertising. Customers see the package in stores, when they're actually buying.

Packaging may lower distribution costs

Better protective packaging is very important to manufacturers and wholesalers. They sometimes have to pay the cost of goods damaged in shipment. Retailers need protective packaging too. It can reduce storing costs by cutting breakage, spoilage, and theft. Good packages save space and are easier to handle and display.[21]

Universal product codes speed handling

To speed handling of fast-selling products, government and industry representatives have developed a **universal product code (UPC)** that identifies each product with marks readable by electronic scanners. A computer then matches each code to the product and its price. Supermarkets and other high-volume retailers have been eager to use these codes. They speed the checkout process and reduce the need to mark the price on every item. They also reduce errors by cashiers and make it easy to control inventory and track sales of specific products.[22]

What Is Socially Responsible Packaging?

Laws reduce confusion and clutter

In the United States, consumer criticism finally led to the passage of the **Federal Fair Packaging and Labeling Act** (of 1966)—which requires that consumer goods be clearly labeled in easy-to-understand terms—to give consumers more information. The law also calls on industry to try to reduce the number of package sizes and make labels more useful. Since then there have been further guidelines. The most far-reaching are based on the Nutrition Labeling and Education Act of 1990. It requires food manufacturers to use a uniform format and disclose what is in their products. The idea was to allow consumers to compare the nutritional value of different products. That could be a plus, and may even lead to healthier diets. However, the Food and Drug Administration estimated that the total cost to change 250,000 food labels in the U.S. marketplace was over $1.4 billion. Ultimately, all consumers shared the cost of those changes, whether they use the information or not.[23]

Internet

Internet Exercise The FDA's website has a page on the food label requirements that proclaims "grocery store aisles have become avenues to greater nutritional knowledge." Go to that page at Internet address (www.fda.gov/opacom/backgrounders/foodlabel/newlabel.html) and review the actual label requirements. Do you use this information in deciding what products to buy?

Current laws also offer more guidance on environmental issues. Some states require a consumer to pay a deposit on bottles and cans until they're returned. These laws mean well, but they can cause problems. Channels of distribution are usually set up to distribute products, not return empty packages.[24]

Ethical decisions remain

Although various laws provide guidance on many packaging issues, many areas still require marketing managers to make ethical choices. For example, some firms have been criticized for designing packages that conceal a downsized product, giving consumers less for the money. Similarly, some retailers design packages and labels for their private-label products that look just like, and are easily confused with, manufacturer brands. Are efforts such as these unethical, or are they simply an attempt to make packaging a more effective part of a marketing mix? Different people will answer differently.

Some marketing managers promote environmentally friendly packaging on some products while simultaneously increasing the use of problematic packages on others. Empty packages now litter our streets, and some plastic packages will lie in a city dump for decades. But some consumers like the convenience that accompanies these problems. Is it unethical for a marketing manager to give consumers with different preferences a choice? Some critics argue that it is; others praise firms that give consumers a choice.

Many critics feel that labeling information is too often incomplete or misleading. Do consumers really understand the nutritional information required by law? Further, some consumers want information that is difficult, perhaps even impossible, to provide. For example, how can a label accurately describe a product's taste or texture? But the ethical issues usually focus on how far a marketing manager should go in putting potentially negative information on a package. For example, should Häagen-Dazs affix a label that says "this product will clog your arteries"? That sounds extreme, but what type of information *is* appropriate?[25]

Unit-pricing is a possible help

Some retailers, especially large supermarket chains, make it easier for consumers to compare packages with different weights or volumes. They use **unit-pricing**—which involves placing the price per ounce (or some other standard measure) on or near the product. This makes price comparison easier.[26]

Food label requirements help some consumers make healthier purchases, but many consumers don't understand or use the information.

Warranty Policies Are a Part of Strategy Planning

Warranty puts promises in writing

A **warranty** explains what the seller promises about its product. A marketing manager should decide whether to offer a specific warranty, and if so what the warranty will cover and how it will be communicated to target customers. This is an area where the legal environment—as well as customer needs and competitive offerings—must be considered.

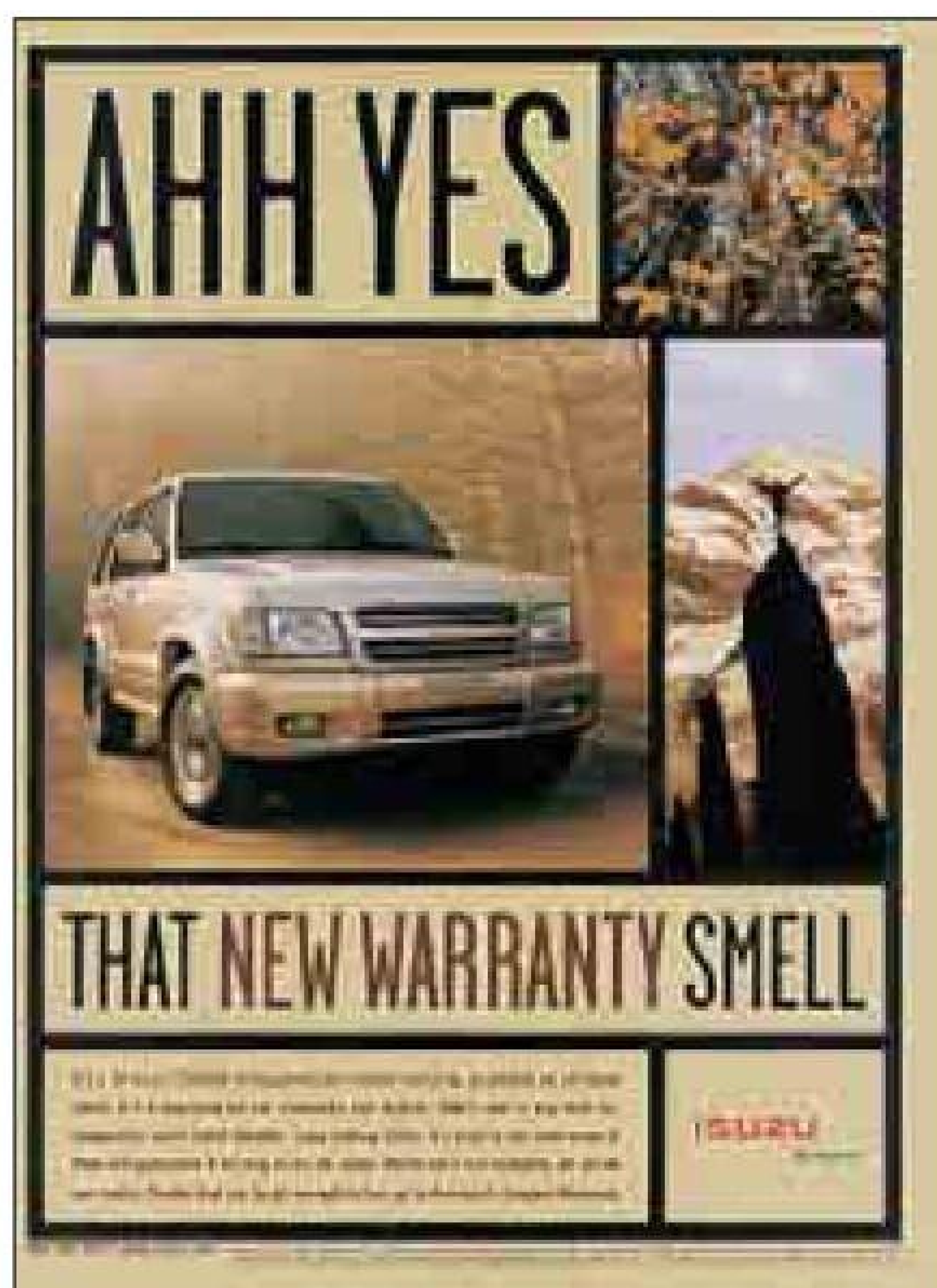
U.S. common law says that producers must stand behind their products—even if they don't offer a specific warranty. A written warranty provided by the seller may promise more than the common law provides. However, it may actually *reduce* the responsibility a producer would have under common law.

The federal **Magnuson-Moss Act** (of 1975) says that producers must provide a clearly written warranty if they choose to offer any warranty. The warranty does not have to be strong. However, Federal Trade Commission (FTC) guidelines try to ensure that warranties are clear and definite and not deceptive or unfair. A warranty must also be available for inspection before the purchase.

Some firms used to say their products were fully warranted or absolutely guaranteed. However, they didn't state the time period or spell out the meaning of the warranty. Now a company has to make clear whether it's offering a full or limited warranty—and the law defines what *full* means. Most firms offer a limited warranty, if they offer one at all.

Warranty may improve the marketing mix

Some firms use warranties to improve the appeal of their marketing mix. They design more quality into their goods or services and offer refunds or replacement, not just repair, if there is a problem. Xerox Corp. uses this approach with its copy machines. Its three-year warranty says that a customer who is not satisfied with a copier—for *any* reason—can trade it for another model. This type of warranty sends a strong signal. A buyer doesn't have to worry about whether the copier will work as expected, service calls will be prompt, or even that the Xerox salesperson or dealer has recommended the appropriate model.



In a competitive market, a product warranty or a service guarantee can be a very important part of the marketing mix.

© The McGraw–Hill Companies, 2002

Service guarantees

Customer service guarantees are becoming more common as a way to attract, and keep, customers. Pizza Hut guarantees a luncheon pizza in five minutes or it's free. General Motors set up a fast-oil-change guarantee to compete with fast-lube specialists who were taking customers away from dealers. If the dealer doesn't get the job done in 29 minutes or less, the next oil change is free. The Hampton Inn motel chain guarantees "100% satisfaction." All employees, even the cleaning crews, are empowered to offer an unhappy customer a discount or refund on the spot.

There's more risk in offering a service guarantee than a warranty on a physical product. An apathetic employee or a service breakdown can create a big expense. However, without the guarantee, dissatisfied customers may just go away mad without ever complaining. When customers collect on a guarantee, the company can clearly identify the problem. Then the problem can be addressed.

Warranty support can be costly

The cost of warranty support ultimately must be covered by the price that consumers pay. This has led some firms to offer warranty choices. The basic price for a product may include a warranty that covers a short time period or that covers parts but not labor. Consumers who want more or better protection pay extra for an extended warranty or a service contract.[27]

Conclusion

In this chapter, we looked at Product very broadly. A product may not be a physical good at all. It may be a service or it may be some combination of goods and services—like a meal at a restaurant. Most important, we saw that a firm's Product is *what satisfies the needs of its target market*.

We introduced consumer product and business product classes and showed their affect on planning marketing mixes. Consumer product classes are based on consumers' buying behavior. Business product classes are based on how buyers see the products and how they are used. Knowing these product classes—and learning how marketers handle specific products within these classes—will help you develop your marketing sense.

The fact that different people may see the same product in different product classes helps explain why seeming competitors may succeed with very different marketing mixes.

Branding and packaging can create new and more satisfying products. Packaging offers special opportunities to promote the product and inform customers. Variations in packaging can make a product attractive to different target markets. A specific package may have to be developed for each strategy.

Customers see brands as a guarantee of quality, and this leads to repeat purchasing. For marketers, such routine buying means lower promotion costs and higher sales.

Should companies stress branding? The decision depends on whether the costs of brand promotion and honoring the brand guarantee can be more than covered by a higher price or more rapid turnover, or both. The cost of branding may reduce pressure on the other three Ps.

Branding gives marketing managers a choice. They can add brands and use individual or family brands. In the end, however, customers express their approval or disapproval of the whole Product (including the brand). The degree of brand familiarity is a measure of the marketing manager's ability to carve out a separate market. And brand familiarity affects Place, Price, and Promotion decisions.

Warranties are also important in strategy planning. A warranty need not be strong—it just has to be clearly stated. But some customers find strong warranties attractive.

Product is concerned with much more than physical goods and services. To succeed in our increasingly competitive markets, the marketing manager must also be concerned about packaging, branding, and warranties.

Questions and Problems

1. Define, in your own words, what a Product is.
2. Discuss several ways in which physical goods are different from pure services. Give an example of a good and then an example of a service that illustrates each of the differences.
3. What products are being offered by a shop that specializes in bicycles? By a travel agent? By a supermarket? By a new car dealer?
4. What kinds of consumer products are the following: *(a)* watches, *(b)* automobiles, and *(c)* toothpastes? Explain your reasoning.
5. Consumer services tend to be intangible, and goods tend to be tangible. Use an example to explain how the lack of a physical good in a pure service might affect efforts to promote the service.
6. How would the marketing mix for a staple convenience product differ from the one for a homogeneous shopping product? How would the mix for a specialty product differ from the mix for a heterogeneous shopping product? Use examples.
7. Give an example of a product that is a *new* unsought product for most people. Briefly explain why it is an unsought product.
8. In what types of stores would you expect to find *(a)* convenience products, *(b)* shopping products, *(c)* specialty products, and *(d)* unsought products?
9. Cite two examples of business products that require a substantial amount of service in order to be useful.
10. Explain why a new law office might want to lease furniture rather than buy it.
11. Would you expect to find any wholesalers selling the various types of business products? Are retail stores required (or something like retail stores)?
12. What kinds of business products are the following: *(a)* lubricating oil, *(b)* electric motors, and *(c)* a firm that provides landscaping and grass mowing for an apartment complex? Explain your reasoning.
13. How do raw materials differ from other business products? Do the differences have any impact on their marketing mixes? If so, what specifically?
14. For the kinds of business products described in this chapter, complete the following table (use one or a few well-chosen words).
    1. *Kind of distribution facility(ies) needed and functions they will provide.*
    2. *Caliber of salespeople required.*
    3. *Kind of advertising required.*

Products	1	2	3
Installations			
Buildings and land rights			
Major equipment			
Standard			
Custom-made			
Accessories			
Raw materials			
Farm products			
Natural products			
Components			
Supplies			
Maintenance and small operating supplies			
Operating supplies			
Professional services			

15. Is there any difference between a brand name and a trademark? If so, why is this difference important?
16. Is a well-known brand valuable only to the owner of the brand?
17. Suggest an example of a product and a competitive situation where it would *not* be profitable for a firm to spend large sums of money to establish a brand.
18. List five brand names and indicate what product is associated with the brand name. Evaluate the strengths and weaknesses of the brand name.
19. Explain family brands. Should Toys "R" Us carry its own dealer brands to compete with some of the popular manufacturer brands it carries? Explain your reasons.
20. In the past, Sears emphasized its own dealer brands. Now it is carrying more well-known manufacturer brands. What are the benefits to Sears of carrying more manufacturer brands?
21. What does the degree of brand familiarity imply about previous and future promotion efforts? How does the degree of brand familiarity affect the Place and Price variables?

22. You operate a small hardware store with emphasis on manufacturer brands and have barely been breaking even. Evaluate the proposal of a large wholesaler who offers a full line of dealer-branded hardware items at substantially lower prices. Specify any assumptions necessary to obtain a definite answer.
23. Give an example where packaging costs probably *(a)* lower total distribution costs and *(b)* raise total distribution costs.
24. Is it more difficult to support a warranty for a service than for a physical good? Explain your reasons.

Suggested Cases

1. McDonald's "Seniors" Restaurant
13. Paper Supplies Corporation

Computer-Aided Problem

9. **Branding Decision**

Wholesteen Dairy, Inc., produces and sells Wholesteen brand condensed milk to grocery retailers. The overall market for condensed milk is fairly flat, and there's sharp competition among dairies for retailers' business. Wholesteen's regular price to retailers is $8.88 a case (24 cans). FoodWorld—a fast-growing supermarket chain and Wholesteen's largest customer—buys 20,000 cases of Wholesteen's condensed milk a year. That's 20 percent of Wholesteen's total sales volume of 100,000 cases per year.

FoodWorld is proposing that Wholesteen produce private label condensed milk to be sold with the FoodWorld brand name. FoodWorld proposes to buy the same total quantity as it does now, but it wants half (10,000 cases) with the Wholesteen brand and half with the FoodWorld brand. FoodWorld wants Wholesteen to reduce costs by using a lower-quality can for the FoodWorld brand. That change will cost Wholesteen $.01 less per can than it costs for the cans that Wholesteen uses for its own brand. FoodWorld will also provide preprinted labels with its brand name—which will save Wholesteen an additional $.02 a can.

Wholesteen spends $70,000 a year on promotion to increase familiarity with the Wholesteen brand. In addition, Wholesteen gives retailers an allowance of $.25 per case for their local advertising, which features the Wholesteen brand. FoodWorld has agreed to give up the advertising allowance for its own brand, but it is only willing to pay $7.40 a case for the milk that will be sold with the FoodWorld brand name. It will continue under the old terms for the rest of its purchases.

Sue Glick, Wholesteen's marketing manager, is considering the FoodWorld proposal. She has entered cost and revenue data on a spreadsheet—so she can see more clearly how the proposal might affect revenue and profits.

a. *Based on the data in the initial spreadsheet, how will Wholesteen profits be affected if Glick accepts the FoodWorld proposal?*
b. *Glick is worried that FoodWorld will find another producer for the FoodWorld private label milk if Wholesteen rejects the proposal. This would immediately reduce Wholesteen's annual sales by 10,000 cases. FoodWorld might even stop buying from Wholesteen altogether. What would happen to profits in these two situations?*
c. *FoodWorld is rapidly opening new stores and sells milk in every store. The FoodWorld buyer says that next year's purchases could be up to 25,000 cases of Wholesteen's condensed milk. But Sue Glick knows that FoodWorld may stop buying the Wholesteen brand and want all 25,000 cases to carry the FoodWorld private label brand. How will this affect profit? (Hint: enter the new quantities in the "proposal" column of the spreadsheet.)*
d. *What should Wholesteen do? Why?*

For additional questions related to this problem, see Exercise 9-5 in the *Learning Aid for Use with Basic Marketing*, 14th edition.

© The McGraw–Hill Companies, 2002

Chapter Ten

Product Management and New-Product Development

When You Finish This Chapter, You Should

1. Understand how product life cycles affect strategy planning.
2. Know what is involved in designing new products and what "new products" really are.
3. Understand the new-product development process.
4. See why product liability must be considered in screening new products.
5. Understand the need for product or brand managers.
6. Understand the important new terms (shown in red).

In today's markets, a few years can bring a lot of changes. When Palm introduced its first personal digital assistant (PDA) in the mid 1990s, it was a really new product concept—even in the eyes of its target market of gadget-loving, on-the-go executives. It didn't do anything radical, but it did a few important things really well. It could store thousands of names and addresses, track expenses, schedule meetings and priorities, and program calculations. And it was easy to use, which helped Palm sell a million units in just the first two years. As sales growth accelerated, Palm introduced new models with more features—like its connected organizer that could "beam" data to another Palm or a computer and even connect to e-mail anywhere anytime.

During those early years, Palm had little direct competition.

place price promotion produc

© The McGraw–Hill Companies, 2002

Customers around the world bought 13 million PDAs in five years, and 75 percent of them were Palms. Business customers were not very price-sensitive, so without much competition Palm also enjoyed great profit margins.

Palm's marketing plan for its new m500 series (www.palm.com) was to improve graphics and power and add modular features like a digital camera and digital notepad for handwritten e-mail. While these were not big changes for the PDA market, they probably looked revolutionary to the marketing managers for DayTimer's pen-and-paper organizers, Timex's DataLink watches, HP's programmable calculators, IBM's Thinkpad laptops, and Motorola's digital pagers. The marketing managers for these products may not have seen the changes to the new m500 or the original PDA as a competitor. Yet when a firm finds a better way to meet customer needs, it disrupts old ways of doing things. And PDAs were taking business from other categories, even digital cameras.

But Palm wasn't immune to the forces of competition either. Its profits, and the growth of the PDA market, attracted rivals. Casio, IBM, Sharp, Psion, HP, and others jumped into the fray. For example, just as Palm was hoping to get growth from sales to students and other price-sensitive consumers, Handspring made big inroads with colorful, low-priced models. Similarly, Compaq's iPaq and other brands chipped away at the high end of the market with units using Microsoft's new Pocket PC operating system. Many users who wanted feature-packed PDAs with more power and better screens thought the Pocket PC had benefits that Palm's system missed. As a weak economy eroded demand, price competition on high-end PDAs

price
place
promotion
product

wiped out Palm's profit margins. It also didn't help that Palm's new-product development process hit delays. When its new model didn't come out on schedule, even loyal customers looked elsewhere.

Given the fast changes in this market environment, it's hard to know what will happen in the future or how marketing strategies may change. Soon a PDA may just be a promotional giveaway with a subscription to some service—like wireless video teleconferencing over the Internet. Or the really big market may be kids—if PDA makers build in more interactive gaming features.[1]

Managing Products over Their Life Cycles

The life and death cycle seen in our Palm case is being repeated over and over again in product-markets worldwide. Cellular phones are replacing shortwave radios and CBs and also making it possible for people to communicate from places where it was previously impossible. Cellular linkups over the Internet are coming on strong. Cassette tapes replaced vinyl records, and now CDs, digital minidiscs, and even VHS tapes are challenged by DVD and MP3 digital files on miniature electronic memory cards. Switchboard operators in many firms were replaced with answering machines, and then answering machines lost ground to voice mail services. "Video messaging" over the Internet is now beginning to replace voice mail.

These innovations show that products, markets, and competition change over time. This makes marketing management an exciting challenge. Developing new products and managing existing products to meet changing conditions is important to the success of every firm. In this chapter, we will look at some important ideas in these areas.

Revolutionary products create new product-markets. Competitors are always developing and copying new ideas and products—making existing products out-of-date more quickly than ever. Products, like consumers, go through life cycles. So product planning and marketing mix planning are important.

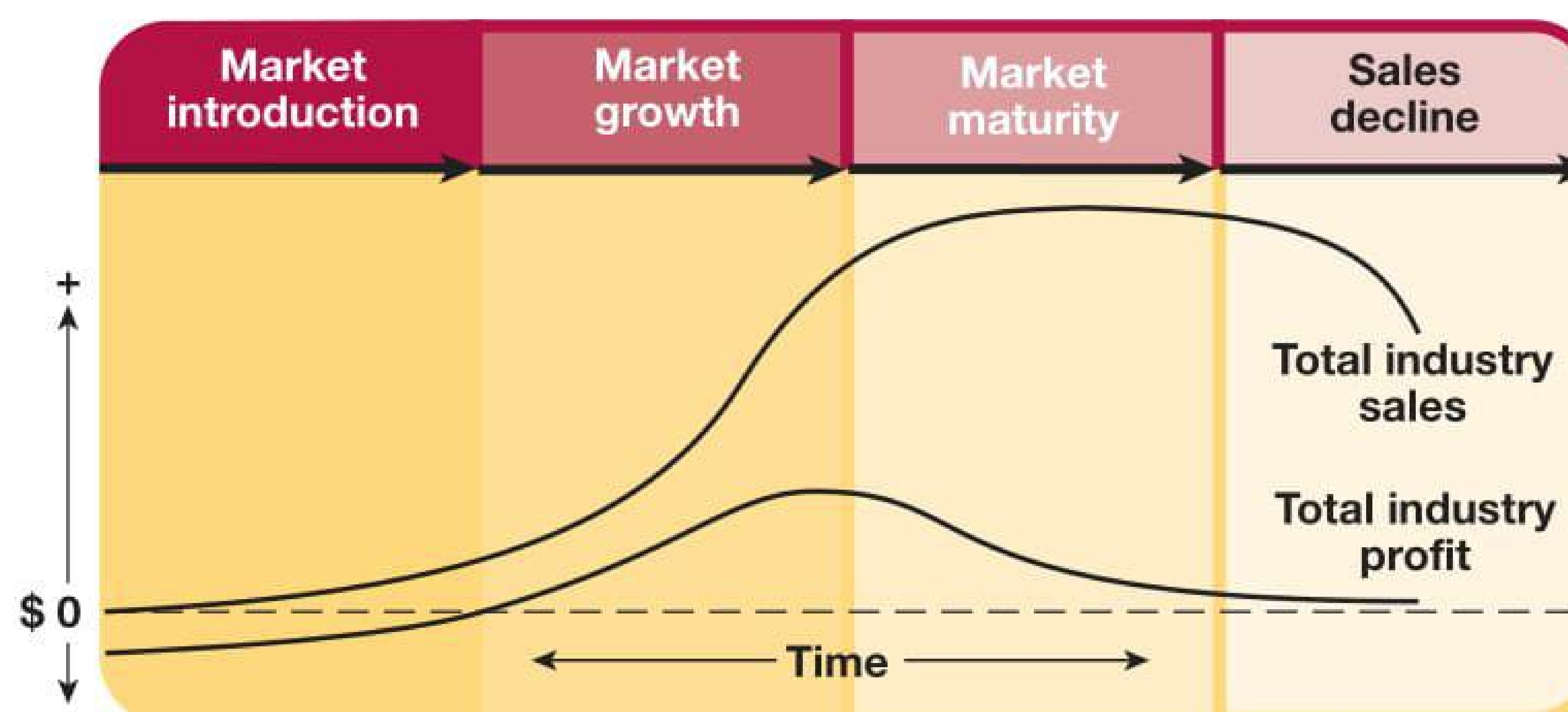
Product life cycle has four major stages

The **product life cycle** describes the stages a really new product idea goes through from beginning to end. The product life cycle is divided into four major stages: (1) market introduction, (2) market growth, (3) market maturity, and (4) sales decline. The product life cycle is concerned with new types (or categories) of product in the market, not just what happens to an individual brand.

A particular firm's marketing mix usually must change during the product life cycle. There are several reasons why. Customers' attitudes and needs may change over the product life cycle. The product may be aimed at entirely different target markets at different stages. And the nature of competition moves toward pure competition or oligopoly.

Further, total sales of the product—by all competitors in the industry—vary in each of its four stages. They move from very low in the market introduction stage to high at market maturity and then back to low in the sales decline stage. More important, the profit picture changes too. These general relationships can be seen in Exhibit 10-1. Note that sales and profits do not move together over time. *Industry profits decline while industry sales are still rising.*[2]

Exhibit 10-1
Typical Life Cycle of a New Product Concept



Market introduction—investing in the future

In the **market introduction** stage, sales are low as a new idea is first introduced to a market. Customers aren't looking for the product. Even if the product offers superior value, customers don't even know about it. Informative promotion is needed to tell potential customers about the advantages and uses of the new product concept.

Even though a firm promotes its new product, it takes time for customers to learn that the product is available. Most companies experience losses during the introduction stage because they spend so much money for Promotion, Product, and Place development. Of course, they invest the money in the hope of future profits.

Market growth—profits go up and down

In the **market growth** stage, industry sales grow fast—but industry profits rise and then start falling. The innovator begins to make big profits as more and more customers buy. But competitors see the opportunity and enter the market. Some just copy the most successful product or try to improve it to compete better. Others try to refine their offerings to do a better job of appealing to some target markets. The new entries result in much product variety. So monopolistic competition—with down-sloping demand curves—is typical of the market growth stage.

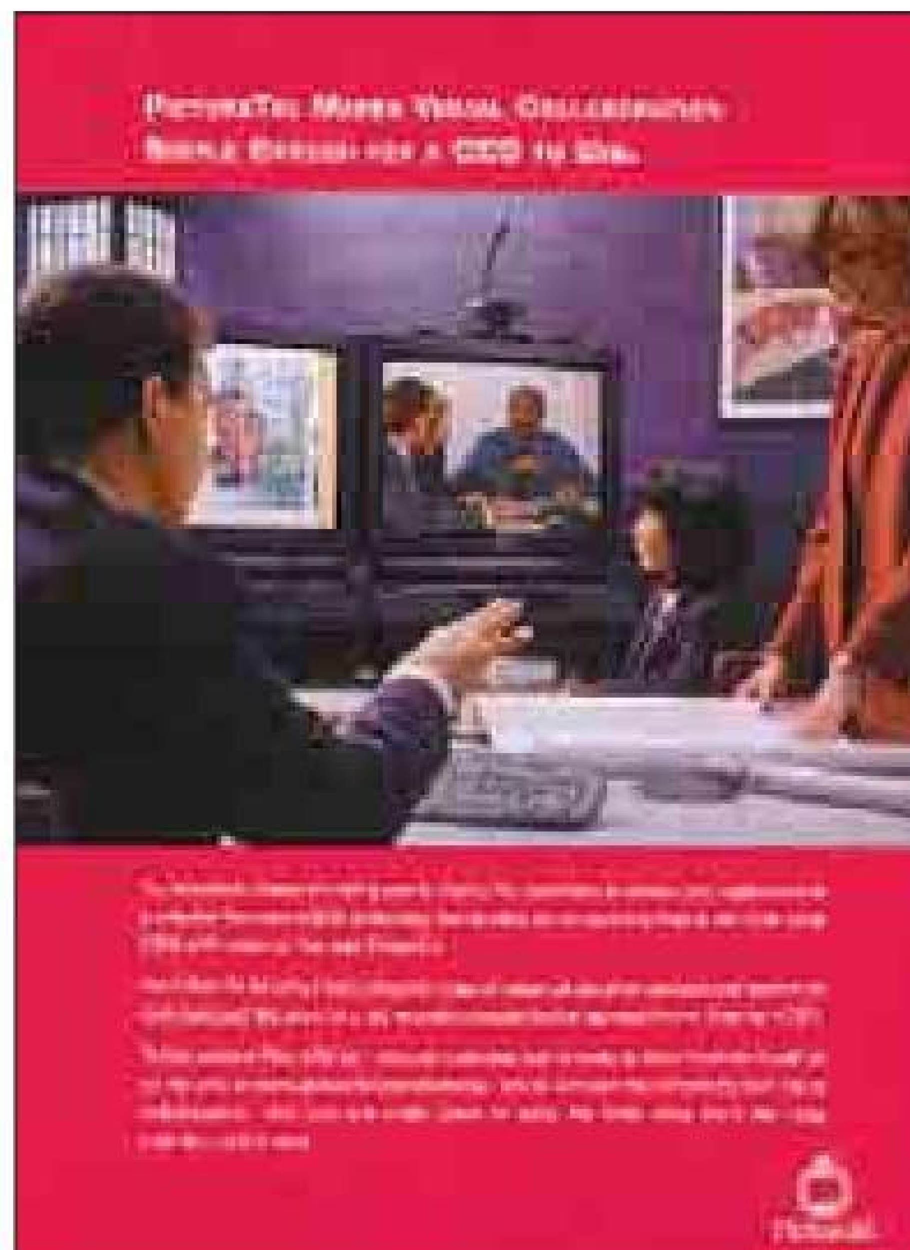
This is the time of biggest profits *for the industry*. It is also a time of rapid sales and earnings growth for companies with effective strategies. *But it is toward the end of this stage when industry profits begin to decline* as competition and consumer price sensitivity increase. See Exhibit 10-1.

Some firms make big strategy planning mistakes at this stage by not understanding the product life cycle. They see the big sales and profit opportunities of the early market growth stage but ignore the competition that will soon follow. When they realize their mistake, it may be too late. This happened with many dot-coms during the late 1990s. Marketing managers who understand the cycle and pay attention to competitor analysis are less likely to encounter this problem.

Market maturity—sales level off, profits continue down

The **market maturity** stage occurs when industry sales level off and competition gets tougher. Many aggressive competitors have entered the race for profits—except in oligopoly situations. Industry profits go down throughout the market maturity stage because promotion costs rise and some competitors cut prices to attract business. Less efficient firms can't compete with this pressure—and they drop out of the market. Even in oligopoly situations, there is a long-run downward pressure on prices.

New firms may still enter the market at this stage—increasing competition even more. Note that late entries skip the early life-cycle stages, including the profitable market growth stage. And they must try to take a share of the saturated market from established firms, which is difficult and expensive. The market leaders have a lot at stake, so they usually will fight hard to defend their market share and revenue stream. Satisfied customers who are happy with their current relationship typically won't be interested in switching to a new brand. So late entrants usually have a tough battle.



A new product, like equipment for video conferencing over the Internet, is likely to get to the market growth stage of the product life cycle more quickly if customers see it as being easy to use.

Persuasive promotion becomes more important during the market maturity stage. Products may differ only slightly if at all. Most competitors have discovered the most effective appeals or quickly copied the leaders. Although each firm may still have its own demand curve, the curves become increasingly elastic as the various products become almost the same in the minds of potential consumers. By then, price sensitivity is a real factor.

In the United States, the markets for most cars, boats, television sets, and many household appliances are in market maturity. This stage may continue for many years—until a basically new product idea comes along—even though individual brands or models come and go. For example, high-definition digital TV (HDTV) is coming on now, and over time it will make obsolete not only the old-style TVs but also the broadcast systems on which they rely.[3]

Sales decline—a time of replacement

During the **sales decline** stage, new products replace the old. Price competition from dying products becomes more vigorous—but firms with strong brands may make profits until the end. These firms have down-sloping demand curves because they successfully differentiated their products.

As the new products go through their introduction stage, the old ones may keep some sales by appealing to the most loyal customers or those who are slow to try new ideas. These conservative buyers might switch later—smoothing the sales decline.

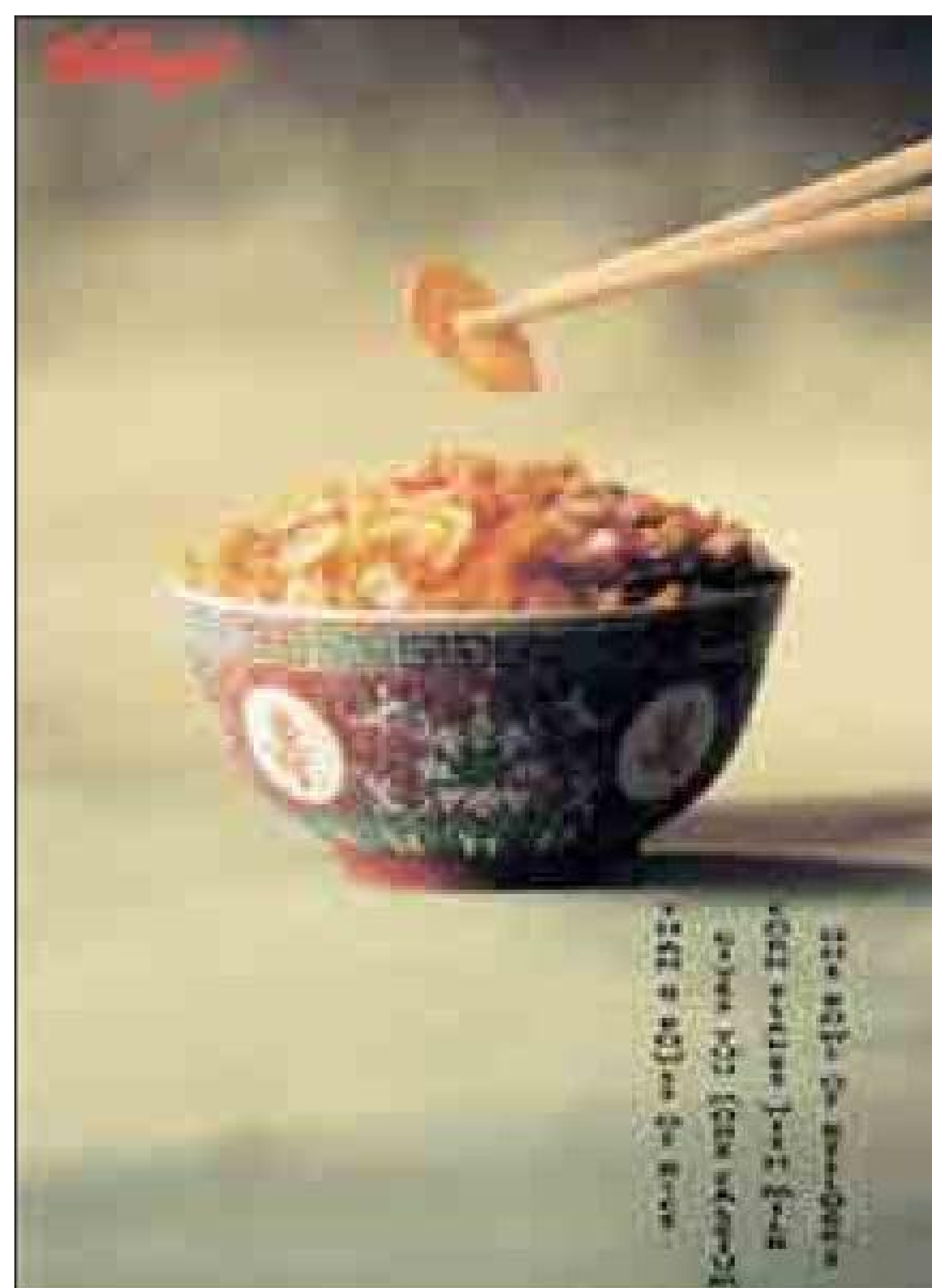
Product Life Cycles Should Be Related to Specific Markets

Remember that product life cycles describe industry sales and profits for a *product idea* within a particular product-market. The sales and profits of an individual product or brand may not, and often do not, follow the life-cycle pattern. They may vary up and down throughout the life cycle—sometimes moving in the opposite direction of industry sales and profits. Further, a product idea may be in a different life-cycle stage in different markets.

Individual brands may not follow the pattern

A given firm may introduce or withdraw a specific product during any stage of the product life cycle. A "me-too" brand introduced during the market growth stage,

Marketing managers for Kellogg and Nabisco have found many opportunities for new growth in international markets.



for example, may never get any sales at all and suffer a quick death. Or it may reach its peak and start to decline even before the market maturity stage begins. Market leaders may enjoy high profits during the market maturity stage—even though industry profits are declining. Weaker products, on the other hand, may not earn a profit during any stage of the product life cycle. Sometimes the innovator brand loses so much in the introduction stage that it has to drop out just as others are reaping big profits in the growth stage.

Strategy planners who naively expect sales of an individual product to follow the general product life-cycle pattern are likely to be rudely surprised. In fact, it might be more sensible to think in terms of "product-market life cycles" rather than product life cycles—but we will use the term *product life cycle* because it is commonly accepted and widely used.

Each market should be carefully defined

How we see product life cycles depends on how broadly we define a product-market. For example, about 80 percent of all U.S. households own microwave ovens. Although microwave ovens appear to be at the market maturity stage here, in many other countries they're still early in the growth stage. Even in European countries like Switzerland, Denmark, Italy, and Spain, fewer than 20 percent of all households own microwave ovens.[4] As this example suggests, a firm with a mature product can sometimes turn back the clock by focusing on new growth opportunities in international markets.

How broadly we define the needs of customers in a product-market also affects how we view product life cycles—and who the competitors are. For example, consider the set of consumer needs related to storing and preparing foods. Wax paper sales in the United States started to decline when Dow introduced Saran Wrap. Then sales of Saran Wrap (and other similar products) fell sharply when small plastic storage bags became popular. However, sales picked up again by the end of the decade. The product didn't change, but customers' needs did. Saran Wrap filled a new need—a wrap that would work well in microwave cooking. In the last few years, resealable bags like those from Ziploc have taken over because they can be used in both the freezer and the microwave.

If a market is defined broadly, there may be many competitors—and the market may appear to be in market maturity. On the other hand, if we focus on a narrow

New products that do a better job of meeting the needs of specific target customers are more likely to move quickly and successfully through the introductory stage of the product life cycle.

submarket—and a particular way of satisfying specific needs—then we may see much shorter product life cycles as improved product ideas come along to replace the old.

Product Life Cycles Vary in Length

How long a whole product life cycle takes—and the length of each stage—vary a lot across products. The cycle may vary from 90 days—in the case of toys like the Ghostbusters line—to possibly 100 years for gas-powered cars.

The product life cycle concept does not tell a manager precisely *how long* the cycle will last. But a manager can often make a good guess based on the life cycle for similar products. Sometimes marketing research can help too. However, it is more important to expect and plan for the different stages than to know the precise length of each cycle.

Some products move fast

A new product idea will move through the early stages of the life cycle more quickly when it has certain characteristics. For example, the greater the *comparative advantage* of a new product over those already on the market, the more rapidly its sales will grow. Sales growth is also faster when the product is *easy to use* and if its advantages are *easy to communicate*. If the product *can be tried* on a limited basis—without a lot of risk to the customer—it can usually be introduced more quickly. Finally, if the product is *compatible* with the values and experiences of target customers, they are likely to buy it more quickly.

The fast adoption of the Netscape Navigator browser for the Internet's World Wide Web is a good example. Netscape offered real benefits. The Internet had been around for a while, but it was used by very few people because it was hard to access. Compared to existing ways for computers to communicate on the Internet, Navigator was easy to use and it worked as well with pictures as data. It also offered a simple way to customize to the user's preferences. Free online downloads of the software made it easy for consumers to try the product. And Navigator worked like other Windows software that users already knew, so it was easy to install and learn—and it was compatible with their computers and how they were working. Most of the initial growth, however, was in the U.S. In less-developed countries where personal computers were less common and where there were fewer computer networks, Navigator did not initially have the same comparative advantages.[5]

Internet

Internet Exercise A number of software, hardware, and programming firms are working on products that deliver Internet information via TV. Explore the WebTV website (www.webtv.com) to find out about one aspect of this idea. How does WebTV stack up when you consider the characteristics of an innovation reviewed earlier?

Product life cycles are getting shorter

Although the life of different products varies, in general product life cycles are getting shorter. This is partly due to rapidly changing technology. One new invention may make possible many new products that replace old ones. Tiny electronic microchips led to hundreds of new products—from Texas Instruments calculators and Pulsar digital watches in the early days to microchip-controlled heart valves, color fax machines, and wireless Internet devices such as the Palm now.

Some markets move quickly to market maturity—if there are fast copiers. In the highly competitive grocery products industry, cycles are down to 12 to 18 months for really new ideas. Simple variations of a new idea may have even shorter life cycles. Competitors sometimes copy flavor or packaging changes in a matter of weeks or months.

Patents for a new product may not be much protection in slowing down competitors. Competitors can often find ways to copy the product idea without violating a specific patent. Worse, some firms find out that an unethical competitor simply disregarded the patent protection. Patent violations by foreign competitors are very common. A product's life may be over before a case can get through patent-court bottlenecks. By then, the copycat competitor may even be out of business. These problems are even more severe in international cases because different governments, rules, and court systems are involved. The patent system, in the United States and internationally, needs significant improvement if it is to really protect firms that develop innovative ideas.[6]

Although life cycles are moving faster in the advanced economies, keep in mind that many advances bypass most consumers in less-developed economies. These consumers struggle at the subsistence level, without an effective macro-marketing system to stimulate innovation. However, some of the innovations and economies of scale made possible in the advanced societies do trickle down to benefit these consumers. Inexpensive antibiotics and drought-resistant plants, for example, are making a life-or-death difference.

The early bird usually makes the profits

The increasing speed of the product life cycle means that firms must be developing new products all the time. Further, they must try to have marketing mixes that will make the most of the market growth stage—when profits are highest.

During the growth stage, competitors are likely to rapidly introduce product improvements. Fast changes in marketing strategy may be required here because profits don't necessarily go to the innovator. Sometimes fast copiers of the basic idea will share in the market growth stage. Sony, a pioneer in developing videocassette recorders, was one of the first firms to put VCRs on the market. Other firms quickly followed—and the competition drove down prices and increased demand. As sales of VCRs continued to grow, Sony doggedly stuck to its Beta format VCRs in spite of the fact that most consumers were buying VHS-format machines offered by competitors. Not until a decade later did Sony finally "surrender" and offer a VHS-format machine. However, by then the booming growth in VCR sales had ebbed, and competitors controlled 90 percent of the market. Although Sony was slow to see its mistake, its lost opportunities were minor compared to American producers who sat on the sidelines and watched as foreign producers captured the whole VCR market. Copiers can be even faster than the innovator in adapting to the market's needs. Marketers must be flexible, *but also* they must fully understand the needs and attitudes of their target markets.[7]

A certain color or style may be in fashion one season and outdated the next.

The short happy life of fashions and fads

The sales of some products are influenced by **fashion**—the currently accepted or popular style. Fashion-related products tend to have short life cycles. What is currently popular can shift rapidly. A certain color or style of clothing—baggy jeans, miniskirts, or four-inch-wide ties—may be in fashion one season and outdated the next. Marketing managers who work with fashions often have to make really fast product changes.

How fast is fast enough? Zara, a women's fashion retailer based in Spain, takes only about two weeks to go from a new fashion concept to having items on the racks of its stores. Zara's market-watching designers get a constant flow of new fashion ideas from music videos, what celebrities are wearing, fashion shows and magazines—even trendy restaurants and bars. Zara quickly produces just enough of a design to test the waters and then sends it out for overnight delivery to some of its 449 stores around the world. Stores track consumer preferences every day through point-of-sale computers. Designers may not even wait for online summaries at the end of the day. They are in constant touch with store managers by phone to get an early take on what's selling and where. If an item is hot, more is produced and shipped. Otherwise it's dropped. Stores get deliveries several times a week. With this system items are rarely on the shelves of Zara stores for more than a week or two. As a result, there is almost no inventory—which helps Zara keep prices down relative to many of its fashion competitors.[8]

It's not really clear why a particular fashion becomes popular. Most present fashions are adaptations or revivals of previously popular styles. Designers are always looking for styles that will satisfy fashion innovators who crave distinctiveness. And lower-cost copies of the popular items may catch on with other groups and survive for a while. Yet the speed of change usually increases the cost of producing and marketing products. Companies sustain losses due to trial and error in finding acceptable styles, then producing them on a limited basis because of uncertainty about the length of the cycle. These increased costs are not always charged directly to the consumer since some firms lose their investment and go out of business. But in total, fashion changes cost consumers money. Fashion changes are a luxury that most people in less-developed countries simply can't afford.

© The McGraw–Hill Companies, 2002

A **fad** is an idea that is fashionable only to certain groups who are enthusiastic about it. But these groups are so fickle that a fad is even more short lived than a regular fashion. Many toys—whether it's a Hasbro Planet of the Apes plastic figure or a Toymax Paintball pack—are fads but do well during a short-lived cycle. Some teenagers' music tastes are fads.[9]

Planning for Different Stages of the Product Life Cycle

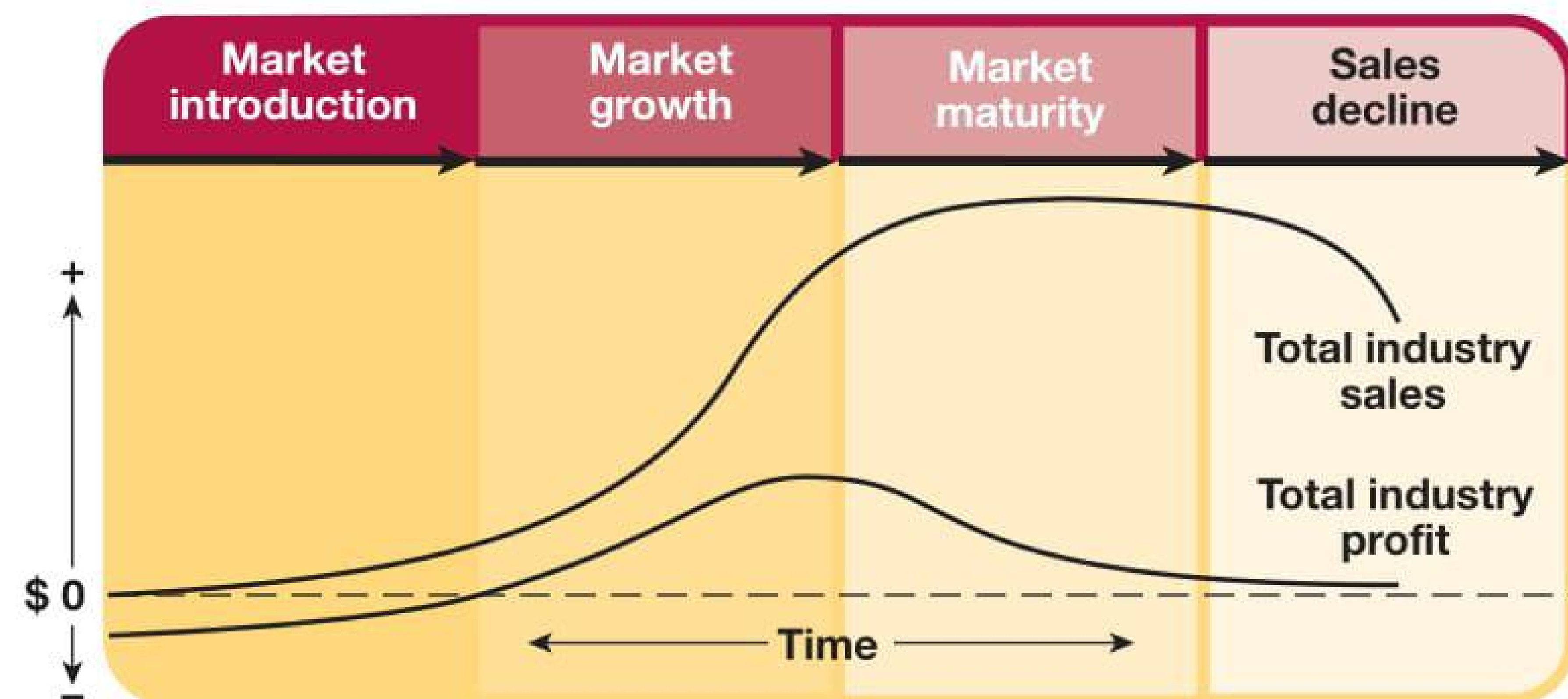
Length of cycle afects strategy planning

Where a product is in its life cycle—and how fast it's moving to the next stage—should affect marketing strategy planning. Marketing managers must make realistic plans for the later stages. Exhibit 10-2 shows the relationship of the product life cycle to the marketing mix variables. The technical terms in this figure are discussed later in the book.

Introducing new products

Exhibit 10-2 shows that a marketing manager has to do a lot of work to introduce a really new product—and this should be reflected in the strategy planning. Money must be spent designing and developing the new product. Even if the product is unique, this doesn't mean that everyone will immediately come running to

Exhibit 10-2
Typical Changes in Marketing Variables over the Product Life Cycle



	Market introduction	Market growth	Market maturity	Sales decline
Competitive situation	Monopoly or monopolistic competition	Monopolistic competition or oligopoly	Monopolistic competition or oligopoly heading toward pure competition →	→
Product	One or few	Variety—try to find best product Build brand familiarity	All "same" Battle of brands	Some drop out
Place	Build channels Maybe selective distribution →		Move toward more intensive distribution →	→
Promotion	Build primary demand Pioneering-informing	Build selective demand → Informing/Persuading → Persuading/Reminding (frantically competitive)		
Price	Skimming or penetration	Meet competition (especially in oligopoly) → or Price dealing and price cutting →		

the producer's door. The firm will have to build channels of distribution—perhaps offering special incentives to win cooperation. Promotion is needed to build demand *for the whole idea* not just to sell a specific brand. Because all this is expensive, it may lead the marketing manager to try to "skim" the market—charging a relatively high price to help pay for the introductory costs.

The correct strategy, however, depends on how fast the product life cycle is likely to move—that is, how quickly the new idea will be accepted by customers—and how quickly competitors will follow with their own versions of the product. When the early stages of the cycle will be fast, a low initial (penetration) price may make sense to help develop loyal customers early and keep competitors out.

Pioneer may need help from competitors

Sometimes it's not in the best interest of the market pioneer for competitors to stay out of the market. This may seem odd. But building customer interest in a really new product idea—and obtaining distribution to make the product available—can be too big a job for a single company, especially a small one with limited resources. Two or more companies investing in promotion to build demand may help to stimulate the growth of the whole product-market. Similarly, a new product that is unique may languish if it is not compatible with other products that customers rely on. This is what recently happened with Digital Video Express (Divx) video disks. When Divx came out, many consumer-electronics makers, retailers, and film studios were struggling to launch DVD format products. Divx had a number of advantages over DVD, but it was not compatible with many of the ordinary DVD players that were already on the market. Video rental stores didn't want to stock movies for both DVD and Divx, and consumers didn't want to get stuck with Divx players if movies were not available. So as DVD started to sizzle Divx fizzled.[10]

New product sales may not take off

Not all new product ideas catch on. Customers may conclude that the marketing mix doesn't satisfy their needs, or other new products may meet the same need better. But the success that eludes a firm with its initial strategy can sometimes be achieved by modifying the strategy. Videodisc players illustrate this point. They were a flop during their initial introduction in the home-entertainment market. Consumers didn't see any advantage over cheaper videotape players. But then new opportunities developed. For example, the business market for these systems grew because firms used them for sales presentations and for in-store selling. Customers could shop for products by viewing pictures at a video kiosk. Of course, change marches on. CD-ROM took over much of this market when computer manufacturers added a CD drive as a standard feature. And now DVD has the advantage because it can handle even more video on one disk.[11]

Also relevant is how quickly the firm can change its strategy as the life cycle moves on. Some firms are very flexible. They can compete effectively with larger, less adaptable competitors by adjusting their strategies more frequently.

Managing maturing products

It's important for a firm to have some competitive advantage as it moves into market maturity. Even a small advantage can make a big difference—and some firms do very well by carefully managing their maturing products. They are able to capitalize on a slightly better product or perhaps lower production and/or marketing costs. Or they are simply more successful at promotion—allowing them to differentiate their more or less homogeneous product from competitors. For example, graham crackers were competing in a mature market and sales were flat. Nabisco used the same ingredients to create bite-sized Teddy Grahams and then promoted them heavily. These changes captured new sales and profits for Nabisco. However, competing firms quickly copied this idea with their own brands.[12]

The important point here is that industry profits are declining in market maturity. Top management must see this, or it will continue to expect the attractive

Some companies continue to do well in market maturity by improving their products. Lipton has developed a cold brew tea and Nintendo's Game Boy remains popular with new color features.

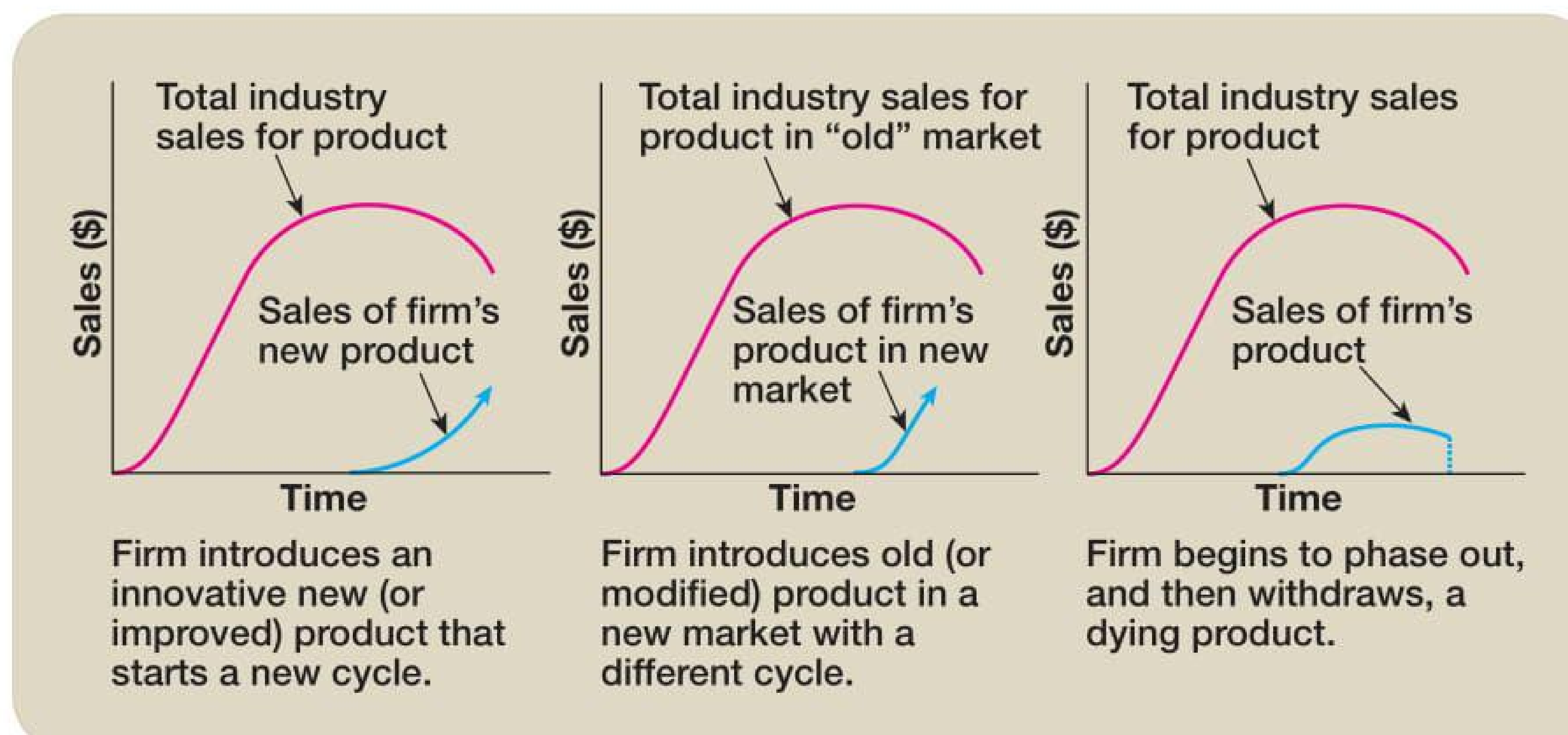
profits of the market growth stage—profits that are no longer possible. If top managers don't understand the situation, they may place impossible burdens on the marketing department—causing marketing managers to think about collusion with competitors, deceptive advertising, or some other desperate attempt to reach impossible objectives.

Product life cycles keep moving. But that doesn't mean a firm should just sit by as its sales decline. There are other choices. A firm can improve its product or develop an innovative new product for the same market. Or it can develop a strategy for its product (perhaps with modifications) targeted at a new market. For example, it might find a market in a country where the life cycle is not so far along, or it might try to serve a new need. Or the firm can withdraw the product before it completes the cycle and refocus on better opportunities. See Exhibit 10-3.

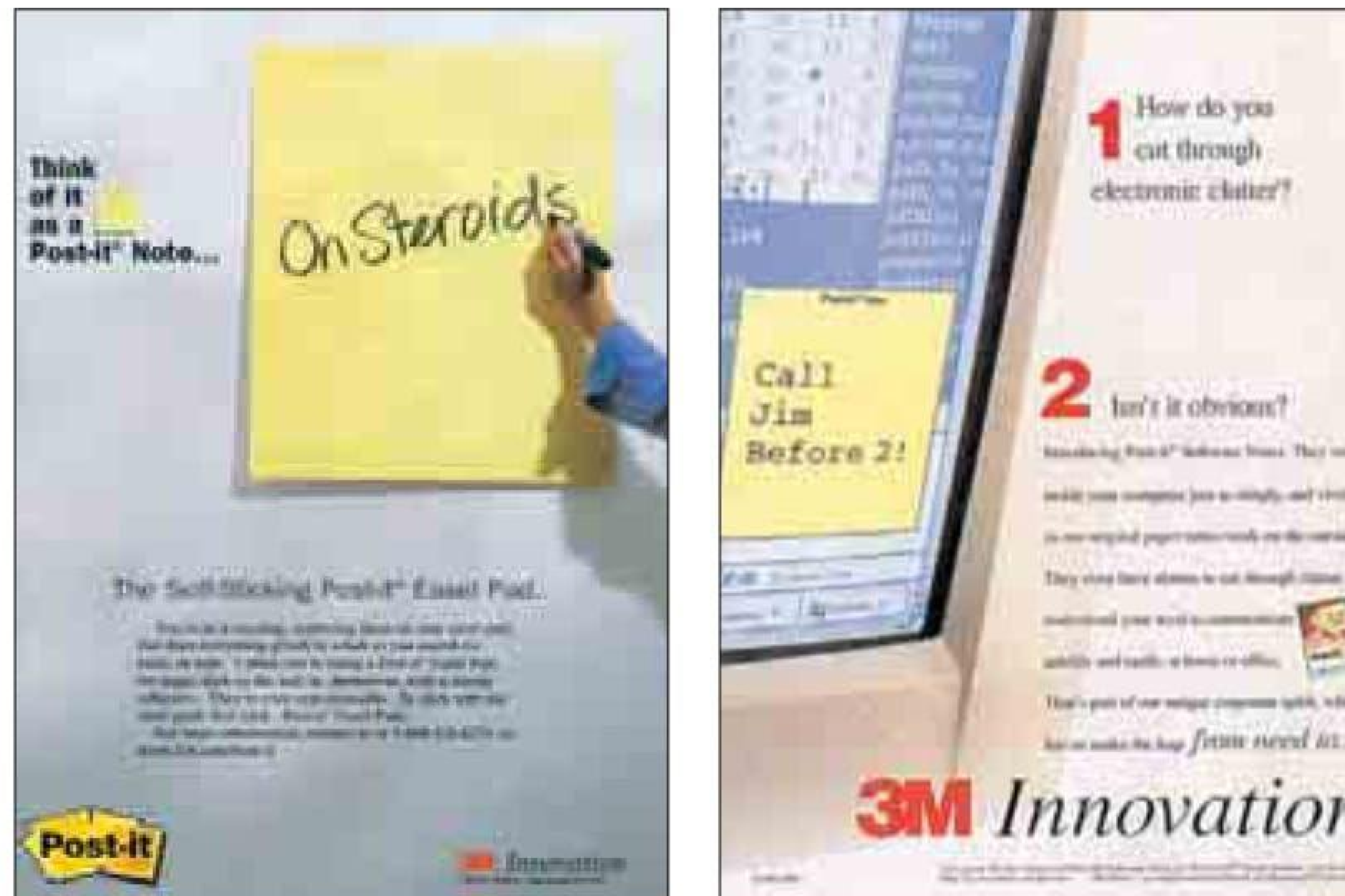
Improve the product or develop a new one

When a firm's product has won loyal customers, it can be successful for a long time—even in a mature or declining market. However, continued improvements may be needed to keep customers satisfied, especially if their needs shift. An outstanding example is Procter & Gamble's Tide. Introduced in 1947, this powdered detergent gave consumers a much cleaner wash than they were able to get before because it did away with soap film. Tide led to a whole new generation of powdered laundry products that cleaned better with fewer suds. The demands on Tide continue to change because of new washing machines and fabrics—so the powdered Tide sold today is much different than the one sold in 1947. In fact, powdered Tide has had at least 55 (sometimes subtle) modifications.

Exhibit 10-3
Examples of Three Marketing Strategy Choices for a Firm in a Mature Product-Market



A new product idea gives birth to lots of new products, so the idea is important.



Do product modifications—like those made with powdered Tide—create a wholly new product that should have its own product life cycle? Or are they technical adjustments of the original product idea? We will take the latter position—focusing on the product idea rather than changes in features. This means that some of these Tide changes were made in the market maturity stage. But this type of product improvement can help to extend the product life cycle.

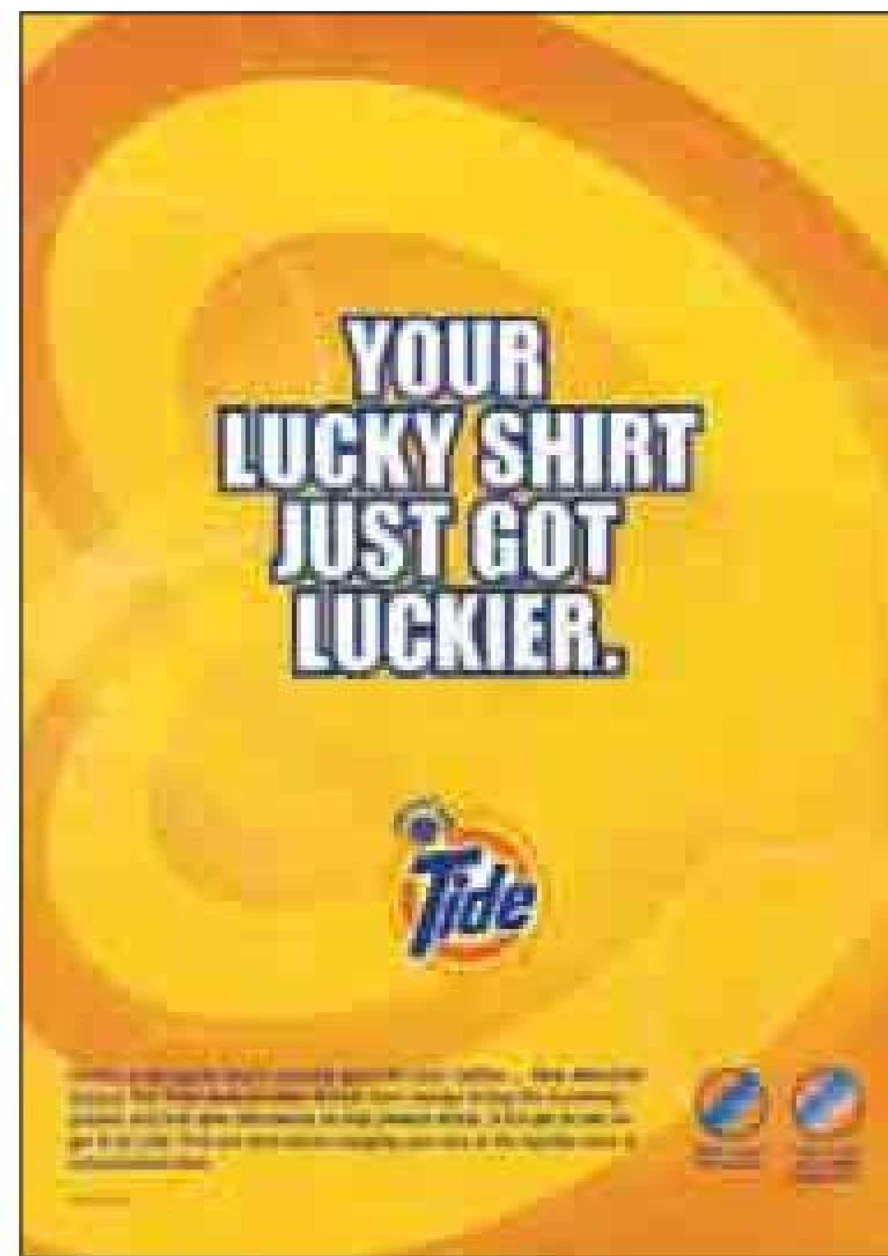
On the other hand, a firm that develops an innovative new product may move to a new product life cycle. For example, by 1985 new liquid detergents like Wisk were moving into the growth stage, and sales of powdered detergents were declining. To share in the growth-stage profits for liquid detergents and to offset the loss of customers from powdered Tide, Procter & Gamble introduced Liquid Tide. Then, in 1997, P&G introduced Tide HE High Efficiency Laundry Detergent. It was the first detergent designed specifically to work with a new type of washing machine that is just now starting to appear in stores. These environmentally friendly front loaders use up to 40 percent less water per wash and over 50 percent less electricity than regular washers. Regular detergents don't work in these washers because they do too much sudsing, but Tide HE is designed to be a low-suds solution. Although P&G used the familiar Tide brand name on both Liquid Tide and Tide HE, they appear to be different product concepts that compete in different product-markets. Traditional liquid detergent is probably now entering the market maturity stage, and Tide HE is probably just starting the growth stage.

Even though regular powdered detergents in general appear to be in the decline stage, traditional powdered Tide continues to sell well because it still does the job for some consumers. But sales growth is likely to come from liquid detergents and the new low-suds detergents.[13]

Develop new strategies for different markets

We already highlighted the fact that the same product may be in different life cycle stages in different markets. That means that a firm may have to pursue very different strategies for a product, at the same time, in different markets.

In a mature market, a firm may be fighting to keep or increase its market share. But if the firm finds a new use for the product, it may need to try to stimulate overall demand. Du Pont's Teflon fluorocarbon resin is a good example. It was developed more than 50 years ago and has enjoyed sales growth as a nonstick coating for cookware, as an insulation for aircraft wiring, and as a lining for chemically resistant equipment. But marketing managers for Teflon are not waiting to be stuck with declining profits in



Tide detergent has been improved many times over the years, and now has a new WearCare formula that helps protect cotton threads from damage. By contrast, Dryel is a completely new type of product and being able to dry clean delicate clothes at home is a new idea.

those mature markets. They are constantly developing strategies for new markets where Teflon will meet needs. For example, Teflon is now selling well as a special coating for the wires used in high-speed communications between computers.[14]

Phasing out dying products

Not all strategies have to be exciting growth strategies. If prospects are poor in some product-market, a phase-out strategy may be needed. The need for phasing out becomes more obvious as the sales decline stage arrives. But even in market maturity, it may be clear that a particular product is not going to be profitable enough to reach the company's objectives using the current strategy. Then the wisest move may be to develop a strategy that helps the firm phase out of the product-market—perhaps over several years.

Marketing plans are implemented as ongoing strategies. Salespeople make calls, inventory moves in the channel, advertising is scheduled for several months into the future, and so on. So the firm usually experiences losses if managers end a plan too abruptly. Because of this, it's sometimes better to phase out the product gradually. Managers order materials more selectively so production can end with a minimum of unused inventory and they shift salespeople to other jobs. They may cancel advertising and other promotion efforts more quickly since there's no point in promoting for the long run. These various actions obviously affect morale within the company—and they may cause middlemen to pull back too. So the company may have to offer price inducements in the channels. Employees should be told that a phase-out strategy is being implemented—and hopefully they can be shifted to other jobs as the plan is completed.

Obviously, there are some difficult implementation problems here. But phase-out is also a *strategy*—and it must be market-oriented to cut losses. In fact, it is possible to milk a dying product for some time if competitors move out more quickly. This situation occurs when there is still ongoing (though declining) demand and some customers are willing to pay attractive prices to get their old favorite.

New-Product Planning

Competition is strong and dynamic in most markets. So it is essential for a firm to keep developing new products, as well as modifying its current products, to meet changing customer needs and competitors' actions. Not having an active new-product

development process means that consciously, or subconsciously, the firm has decided to milk its current products and go out of business. New-product planning is not an optional matter. It has to be done just to survive in today's dynamic markets.

What is a new product?

In discussing the introductory stage of product life cycles, we focused on the type of really new product innovations that tend to disrupt old ways of doing things. However, each year firms introduce many products that are basically refinements of existing products. So a **new product** is one that is new *in any way* for the company concerned.

A product can become "new" in many ways. A fresh idea can be turned into a new product and start a new product life cycle. For example, Alza Corporation's time-release skin patches are replacing pills and injections for some medications.

Variations on an existing product idea can also make a product new. Oral B changed its conventional toothbrush to include a strip of colored bristles that fade as you brush; that way you know when it's time for a new brush. Colgate redesigned the toothbrush with a soft handle and angled bristles to do a better job removing tartar. Even small changes in an existing product can make it new.[15]

FTC says product is "new" only six months

A firm can call its product new for only a limited time. Six months is the limit according to the **Federal Trade Commission (FTC)**—the federal government agency that polices antimonopoly laws. To be called new, says the FTC, a product must be entirely new or changed in a "functionally significant or substantial respect." While six months may seem a very short time for production-oriented managers, it may be reasonable, given the fast pace of change for many products.

Ethical issues in new-product planning

New product decisions—and decisions to abandon old products—often involve ethical considerations. For example, some firms (including firms that develop drugs to treat AIDS) have been criticized for holding back important new product innovations until patents run out, or sales slow down, on their existing products.

At the same time, others have been criticized for "planned obsolescence"—releasing new products that the company plans to soon replace with improved new versions. Similarly, wholesalers and middlemen complain that producers too often keep their new-product introduction plans a secret and leave middlemen with dated inventory that they can sell only at a loss.

Companies also face ethical dilemmas when they decide to stop supplying a product or the service and replacement parts to keep it useful. An old model of a Cuisinart food processor, for example, might be in perfect shape except for a crack in the plastic mixing bowl. It's sensible for the company to improve the design if the crack is a frequent problem, but if consumers can't get a replacement part for the model they already own, they're left holding the bag.

Criticisms are also leveled at firms that constantly release minor variations of products that already saturate markets. Consider what happened with disposable diapers. Marketing managers thought that they were serving some customers' needs better when they offered diapers in boys' and girls' versions and in a variety of sizes, shapes, and colors. But many retailers felt that the new products were simply a ploy to get more shelf space. Further, some consumers complained that the bewildering array of choices made it impossible to make an informed decision. Of course, some people would level the same criticism at Huggies Little Swimmers Disposable Swimpants. But unlike other disposables, this new product doesn't swell in the water. They have been a success because they seem to fill a different need.

So, different marketing managers might have very different reactions to such criticisms. However, the fact remains that product management decisions often have a significant effect, one way or another, on customers and middlemen. A marketing manager who is not sensitive to this may find that a too casual decision leads to a negative backlash that affects the firm's strategy or reputation.[16]

An Organized New-Product Development Process Is Critical

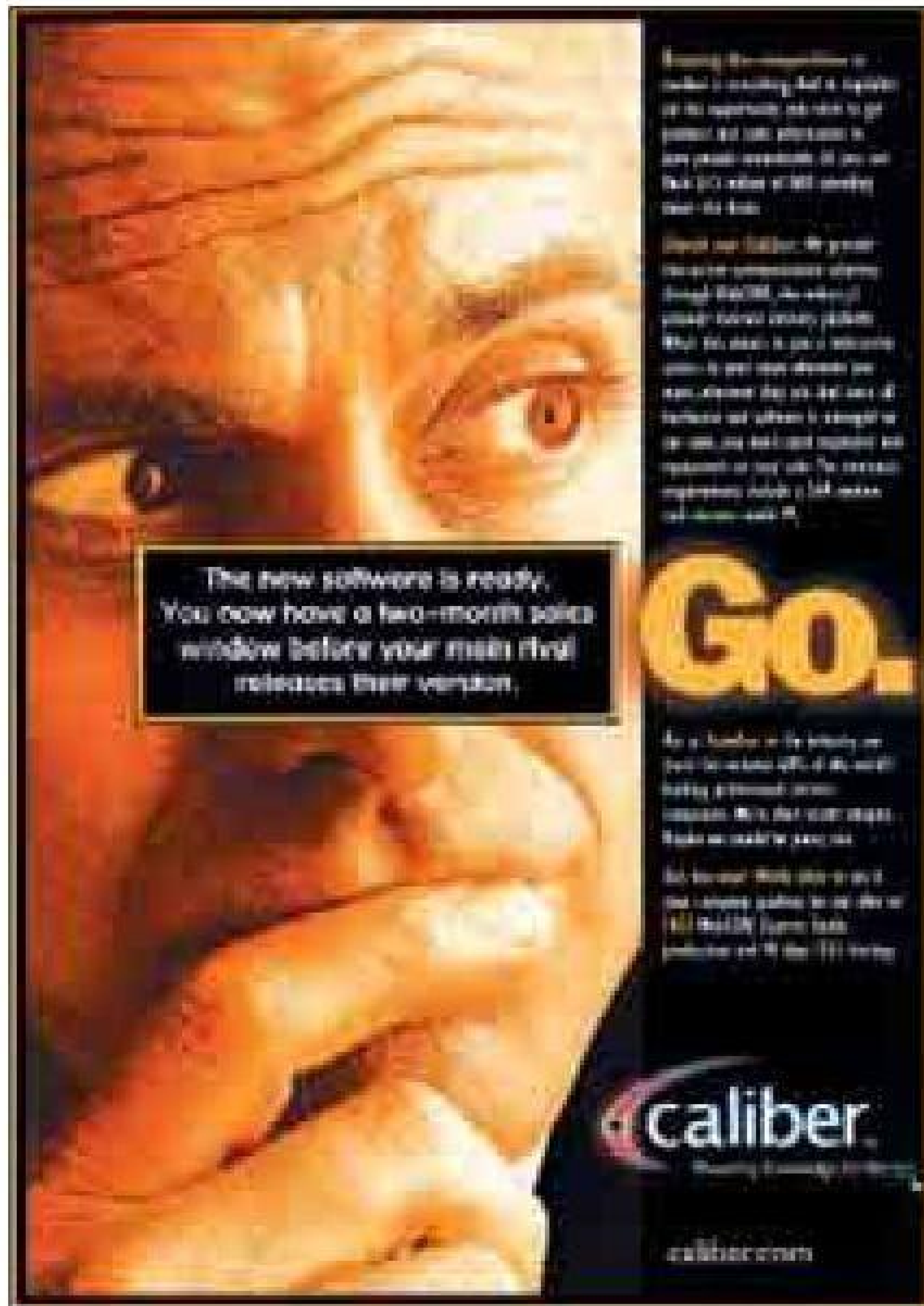
Identifying and developing new-product ideas—and effective strategies to go with them—is often the key to a firm's success and survival. But this isn't easy. New-product development demands effort, time, and talent—and still the risks and costs of failure are high. Experts estimate that consumer packaged-goods companies spend at least $20 million to introduce a new brand—and 70 to 80 percent of these new brands flop. Each year there are over 31,000 new consumer packaged goods in the U.S. alone. So, about 25,000 failed. That's a big expense—and a waste. In the service sector, the front-end cost of a failed effort may not be as high, but it can have a devastating long-term effect if dissatisfied consumers turn elsewhere for help.[17]

Internet

Internet Exercise Marketing Intelligence Service, Ltd., is a U.S.-based firm that tracks new consumer packaged goods—both successes and failures. Enter its website (www.productscan.com) and click on the *What's New* button, then review its selections for new product innovations of the year. Do you think that these products offer customers superior value, or are they just me-too imitations?

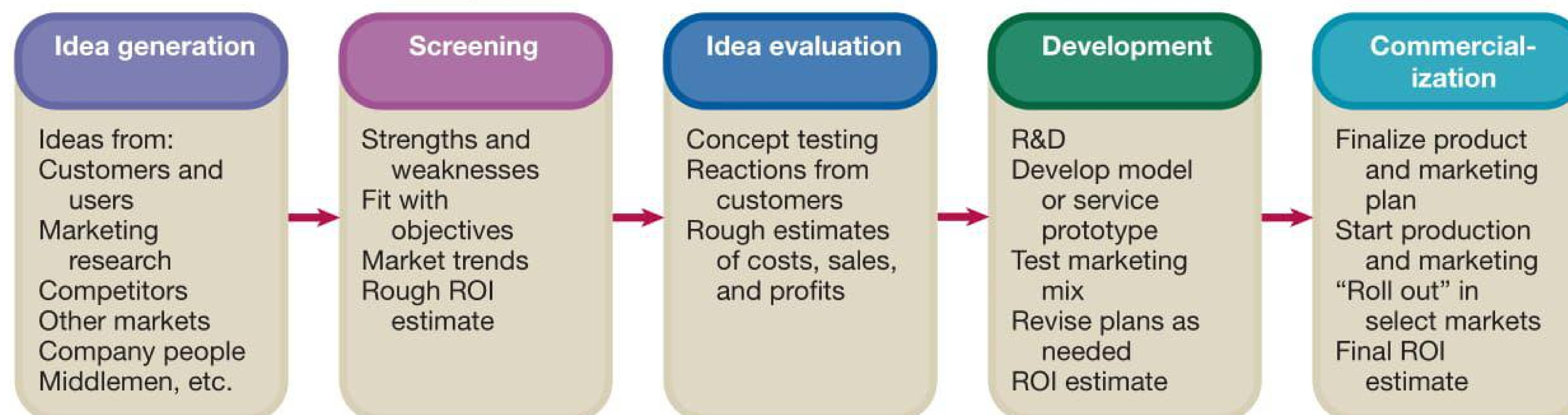
A new product may fail for many reasons. Most often, companies fail to offer a unique benefit or underestimate the competition. Sometimes the idea is good but the company has design problems—or the product costs much more to produce than was expected. Some companies rush to get a product on the market without developing a complete marketing plan.[18]

But moving too slowly can be a problem too. With the fast pace of change for many products, speedy entry into the market can be a key to competitive advantage. Marketing managers at Xerox learned this the hard way. Japanese competitors were taking market share with innovative new models of copiers. It turned out that the competitors were developing new models twice as fast as Xerox and at half the



Generating innovative and profitable new products requires an understanding of customer needs—and an organized new-product development process.

Exhibit 10-4 New-Product Development Process



cost. For Xerox to compete, it had to slash its five-year product development cycle. Many other companies—ranging from manufacturers like Chrysler Corporation and Hewlett-Packard to Internet service firms like E*Trade and Yahoo—are working to speed up the new-product development process.[19]

To move quickly and also avoid expensive new-product failures, many companies follow an organized new-product development process. The following pages describe such a process, which moves logically through five steps: (1) idea generation, (2) screening, (3) idea evaluation, (4) development (of product and marketing mix), and (5) commercialization.[20] See Exhibit 10-4.

The general process is similar for both consumer and business markets—and for both goods and services. There are some significant differences, but we will emphasize the similarities in the following discussion.

Process tries to kill new ideas—economically

An important element in this new-product development process is continued evaluation of a new idea's likely profitability and return on investment. In fact, the hypothesis-testing approach discussed in Chapter 8 works well for new-product development. The hypothesis tested is that the new idea will *not* be profitable. This puts the burden on the new idea—to prove itself or be rejected. Such a process may seem harsh, but experience shows that most new ideas have some flaw that can lead to problems and even substantial losses. Marketers try to discover those flaws early, and either find a remedy or reject the idea completely. Applying this process requires much analysis of the idea, both within and outside the firm, *before* the company spends money to develop and market a product. This is a major departure from the usual production-oriented approach—in which a company develops a product first and then asks sales to "get rid of it."

Of course, the actual new-product success rate varies among industries and companies. But many companies *are* improving the way they develop new products. It's important to see that if a firm doesn't use an organized process like this, it may bring many bad or weak ideas to market—at a big loss.

Step 1: Idea generation

New ideas can come from a company's own sales or production staff, middlemen, competitors, consumer surveys, or other sources such as trade associations, advertising agencies, or government agencies. By analyzing new and different views of the company's markets and studying present consumer behavior, a marketing manager can spot opportunities that have not yet occurred to competitors or even to potential customers. For example, ideas for new service concepts may come directly from analysis of consumer complaints.

No one firm can always be first with the best new ideas. So in their search for ideas, companies should pay attention to what current or potential competitors are doing. Microsoft, for example, had to play catchup with its Internet Explorer browser—and other changes to Windows—when Netscape Navigator became an instant hit. Some

firms use what's called reverse engineering. For example, new-product specialists at Ford Motor Company buy other firms' cars as soon as they're available. Then they take the cars apart to look for new ideas or improvements. British Airways talks to travel agents to learn about new services offered by competitors. Many other companies use similar approaches.[21]

Many firms now "shop" in international markets for new ideas. Jamaica Broilers, a poultry producer in the Caribbean, moved into fish farming; it learned that many of the techniques it was using to breed chickens were also successful on fish farms in Israel. In the same vein, food companies in the United States and Europe are experimenting with an innovation recently introduced in Japan—a clear, odorless, natural film for wrapping food. Consumers don't have to unwrap it; when they put the product in boiling water or a microwave, the wrapper vanishes.[22]

Research shows that many new ideas in business markets come from customers who identify a need they have. Then they approach a supplier with the idea and perhaps even with a particular design or specification. These customers become the lead users of the product, but the supplier can pursue the opportunity in other markets.[23]

But finding new product ideas can't be left to chance. Companies need a formal procedure for seeking new ideas. The checkpoints discussed below, as well as the hierarchy of needs and other behavioral elements discussed earlier, should be reviewed regularly to ensure a continual flow of new, and sound, ideas. And companies do need a continual flow so they can spot an opportunity early—while there's still time to do something about it. Although later steps eliminate many ideas, a company must have some that succeed.

Step 2: Screening

Screening involves evaluating the new ideas with the type of S.W.O.T analysis described in Chapter 3 and the product-market screening criteria described in Chapter 4. Recall that these criteria include the combined output of a resource (strengths and weaknesses) analysis, a long-run trends analysis, and a thorough understanding of the company's objectives. See Exhibit 3-1 and Exhibit 4-5. Further, a "good" new idea should eventually lead to a product (and marketing mix) that will give the firm a competitive advantage—hopefully, a lasting one.

Opportunities with better growth potential are likely to be more attractive. We discussed this idea earlier when we introduced the GE planning grid (see Exhibit 4-7). Now, however, you know that the life-cycle stage at which a firm's new product enters the market has a direct bearing on its prospects for growth. Clearly, screening should consider how the strategy for a new product will hold up over the whole product life cycle. In other words, screening should consider how attractive the new product will be both in the short- and long-term.

Some companies screen based on consumer welfare

Screening should also consider how a new product will affect consumers over time. Ideally, the product should increase consumer welfare, not just satisfy a whim. Exhibit 10-5 shows different kinds of new-product opportunities. Obviously, a socially responsible firm tries to find desirable opportunities rather than deficient ones. This may not be as easy as it sounds, however. Some consumers want pleasing products

Exhibit 10-5
Types of New-Product Opportunities

© The McGraw–Hill Companies, 2002

Products that can be regenerated or remanufactured provide both immediate satisfaction and long-run consumer welfare.

instead of desirable ones. They emphasize immediate satisfaction and give little thought to their own long-term welfare. And some competitors willingly offer what consumers want in the short run. Generating socially responsible new-product ideas is a challenge for new-product planners, but consumer groups are helping firms to become more aware.

Safety must be considered

Real acceptance of the marketing concept certainly leads to safe products. But consumers still buy some risky products for the thrills and excitement they provide—for example, bicycles, skis, hang gliders, and bungee jumps. Even so, companies can usually add safety features—and some potential customers want them.

The U.S. **Consumer Product Safety Act** (of 1972) set up the Consumer Product Safety Commission to encourage safety in product design and better quality control. The commission has a great deal of power. It can set safety standards for products. It can order costly repairs or return of unsafe products. And it can back up its orders with fines and jail sentences. The Food and Drug Administration has similar powers for food and drugs.

Product safety complicates strategy planning because not all customers—even those who want better safety features—are willing to pay more for safer products. Some features cost a lot to add and increase prices considerably. These safety concerns must be considered at the screening step because a firm can later be held liable for unsafe products.

Products can turn to liabilities

Product liability means the legal obligation of sellers to pay damages to individuals who are injured by defective or unsafe products. Product liability is a serious matter. Liability settlements may exceed not only a company's insurance coverage but its total assets!

Relative to most other countries, U.S. courts enforce a very strict product liability standard. Producers may be held responsible for injuries related to their products no matter how the items are used or how well they're designed. Riddell—whose football helmets protect the pros—was hit with a $12 million judgment for

a high school football player who broke his neck. The jury concluded that Riddell should have put a sticker on the helmet to warn players of the danger of butting into opponents!

Cases and settlements like this are common. In the United States, companies pay over $100 billion a year to lawyers and consumers. Some critics argue that the U.S. rules are so tough that they discourage innovation and economic growth. In contrast, Japan may be too slack. Japan's system discourages consumers from filing complaints because they are required to pay a percentage of any damages they seek as court costs—regardless of whether they win or lose.

Sometimes there is incentive for lawyers to push liability cases to take a share of the payments. Juries sometimes give huge settlements based on an emotional reaction to the case rather than scientific evidence. That seems to have happened in lawsuits over silicon breast implants. On the other hand, until recently tobacco companies' lawyers took just about any step they could to try to discredit scientific evidence of the cancer hazards of smoking.

Product liability is a serious ethical and legal matter. Many countries are attempting to change their laws so that they will be fair to both firms and consumers. But until product liability questions are resolved, marketing managers must be even more sensitive when screening new-product ideas.[24]

ROI is a crucial screening criterion

Getting by the initial screening criteria doesn't guarantee success for the new idea. But it does show that at least the new idea is in the right ballpark *for this firm*. If many ideas pass the screening criteria, a firm must set priorities to determine which ones go on to the next step in the process. This can be done by comparing the ROI (return on investment) for each idea—assuming the firm is ROI-oriented. The most attractive alternatives are pursued first.

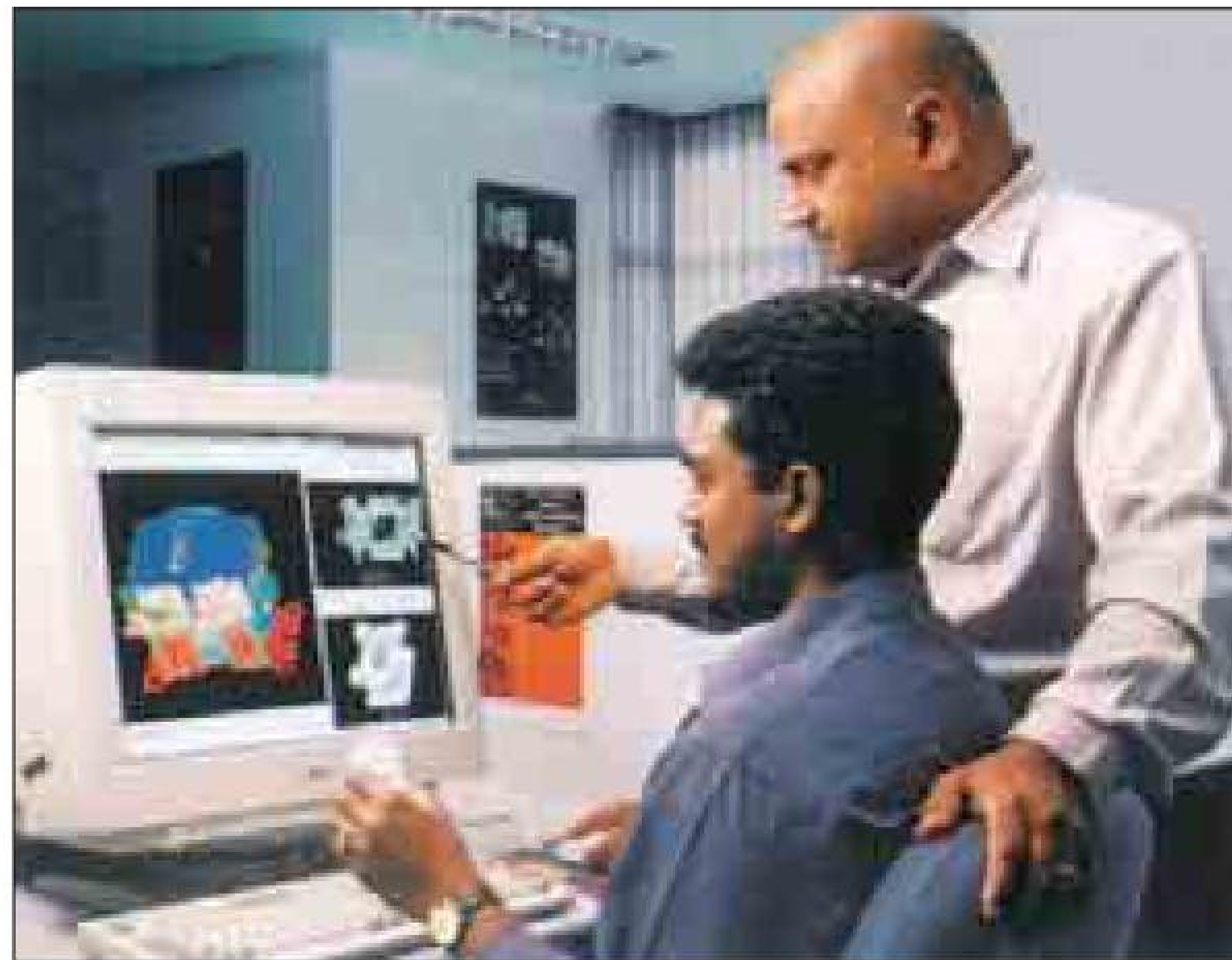
Step 3: Idea evaluation

When an idea moves past the screening step, it is evaluated more carefully. Note that an actual product has not yet been developed—and this can handicap the firm in getting feedback from customers. For help in idea evaluation, firms use **concept testing**—getting reactions from customers about how well a new product idea fits their needs. Concept testing uses market research—ranging from informal focus groups to formal surveys of potential customers.

Companies can often estimate likely costs, revenue, and profitability at this stage. And market research can help identify the size of potential markets. Even informal focus groups are useful—especially if they show that potential users are not excited about the new idea. If results are discouraging, it may be best to kill the idea at this stage. Remember, in this hypothesis-testing process, we're looking for any evidence that an idea is *not* a good opportunity for this firm and should be rejected.

Product planners must think about wholesaler and retailer customers as well as final consumers. Middlemen may have special concerns about handling a proposed product. A Utah ice-cream maker was considering a new line of ice-cream novelty products—and he had visions of a hot market in California. But he had to drop his idea when he learned that grocery store chains wanted payments of $20,000 each just to stock his frozen novelties in their freezers. Without the payment, they didn't want to risk using profitable freezer space on an unproven product. This is not an unusual case. At the idea evaluation stage, companies often find that other members of the distribution channel won't cooperate.[25]

Idea evaluation is often more precise in business markets. Potential customers are more informed—and their needs focus on the economic reasons for buying rather than emotional factors. Further, given the derived nature of demand in business markets, most needs are already being satisfied in some way. So new products just substitute for existing ones. This means that product planners can compare the cost advantages and limitations of a new product with those currently being used. And



GE developed a software system so that its new product design engineers in different parts of the world could collaborate over the Internet in real time—which helps GE bring concepts to market more quickly.

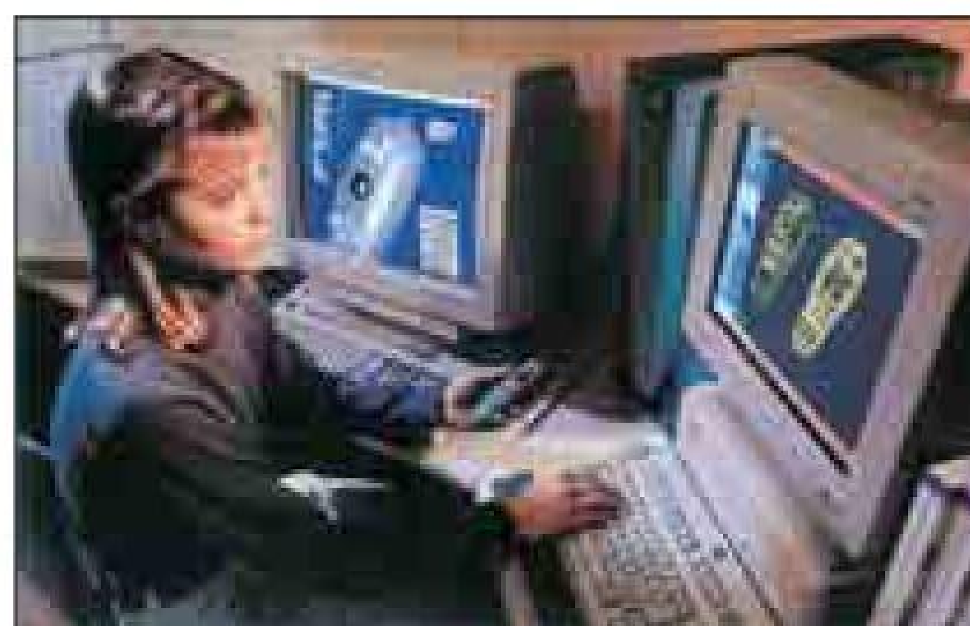
by interviewing well-informed people, they can determine the range of product requirements and decide whether there is an opportunity.

For example, you've probably noticed that most new car designs have switched to low-profile headlights. They allow sleeker styling and better gas mileage. Yet these lights were initially only used on high-priced cars. That's because the GE development team worked with engineers at Ford when they were first developing the bulbs for these headlights. Together they determined that the switch to the new bulb and headlight assembly would add about $200 to the price of a car. That meant that the bulb was initially limited to luxury cars—until economies of scale brought down the costs.[26]

Whatever research methods are used, the idea evaluation step should gather enough information to help decide whether there is an opportunity, whether it fits with the firm's resources, *and* whether there is a basis for developing a competitive advantage. With such information, the firm can estimate likely ROI in the various market segments and decide whether to continue the new-product development process.[27]

Step 4: Development

Product ideas that survive the screening and idea evaluation steps must now be analyzed further. Usually, this involves some research and development (R&D) and engineering to design and develop the physical part of the product. In the case of a new service offering, the firm will work out the details of what training, equipment, staff, and so on will be needed to deliver on the idea. Input from the earlier efforts helps guide this technical work.



New computer-aided design (CAD) systems are sparking a revolution in design work. Designers can develop lifelike 3-D color drawings of packages and products. Then the computer allows the manager to look at the product from different angles and views, just as with a real product. Changes can be made almost instantly. They can be sent by e-mail to managers all over the world for immediate review. They can even be put on a website for marketing research with remote customers. Then once the designs are finalized, they feed directly into computer-controlled manufacturing systems. Companies like Motorola and Timex have found that these systems cut their new-product development time in half—giving them a leg up on many competitors. Most firms are now using variations on these systems.

Even so, it is still good to test models and early versions of the product in the market. This process may have several cycles. A manufacturer may build a model of a physical product or produce limited quantities; a service firm may try to train a small group of service providers. Product tests with customers may lead to revisions—*before* the firm commits to full-scale efforts to produce the good or service.

With actual goods or services, potential customers can react to how well the product meets their needs. Using small focus groups, panels, and larger surveys, marketers can get reactions to specific features and to the whole product idea. Sometimes that reaction kills the idea. For example, Coca-Cola Foods believed it had a great idea with Minute Maid Squeeze-Fresh, frozen orange juice concentrate in a squeeze bottle. Coca-Cola thought consumers would prefer to mix one glass at a time rather than find space for another half-gallon jug in the refrigerator. When actually tested, however, Squeeze-Fresh bombed. Consumers loved the idea but hated the product. It was messy to use, and no one could tell how much concentrate to squeeze in the glass.[28]

In other cases, testing can lead to revision of product specifications for different markets. For example, AMR Corporation had plans for a new reservation system to help travel agents, hotels, and airlines provide better customer service. But tests revealed too many problems, and plans for the service had to be revised. Sometimes a complex series of revisions may be required. Months or even years of research may be necessary to focus on precisely what different market segments will find acceptable. For example, Gillette's Mach3 razor blade took over a decade and $750 million in development and tooling costs, plus another $300 million for introductory promotion.[29]

Firms often use full-scale market testing to get reactions in real market conditions or to test product variations and variations in the marketing mix. For example, a firm may test alternative brands, prices, or advertising copy in different test cities. Note that the firm is testing the whole marketing mix, not just the product. For example, a hotel chain might test a new service offering at one location to see how it goes over.

Test-marketing can be risky because it may give information to competitors. In fact, a company in Chicago—Marketing Intelligence Services—monitors products in test markets and then sells the information to competing firms. Similar firms monitor markets in other countries.

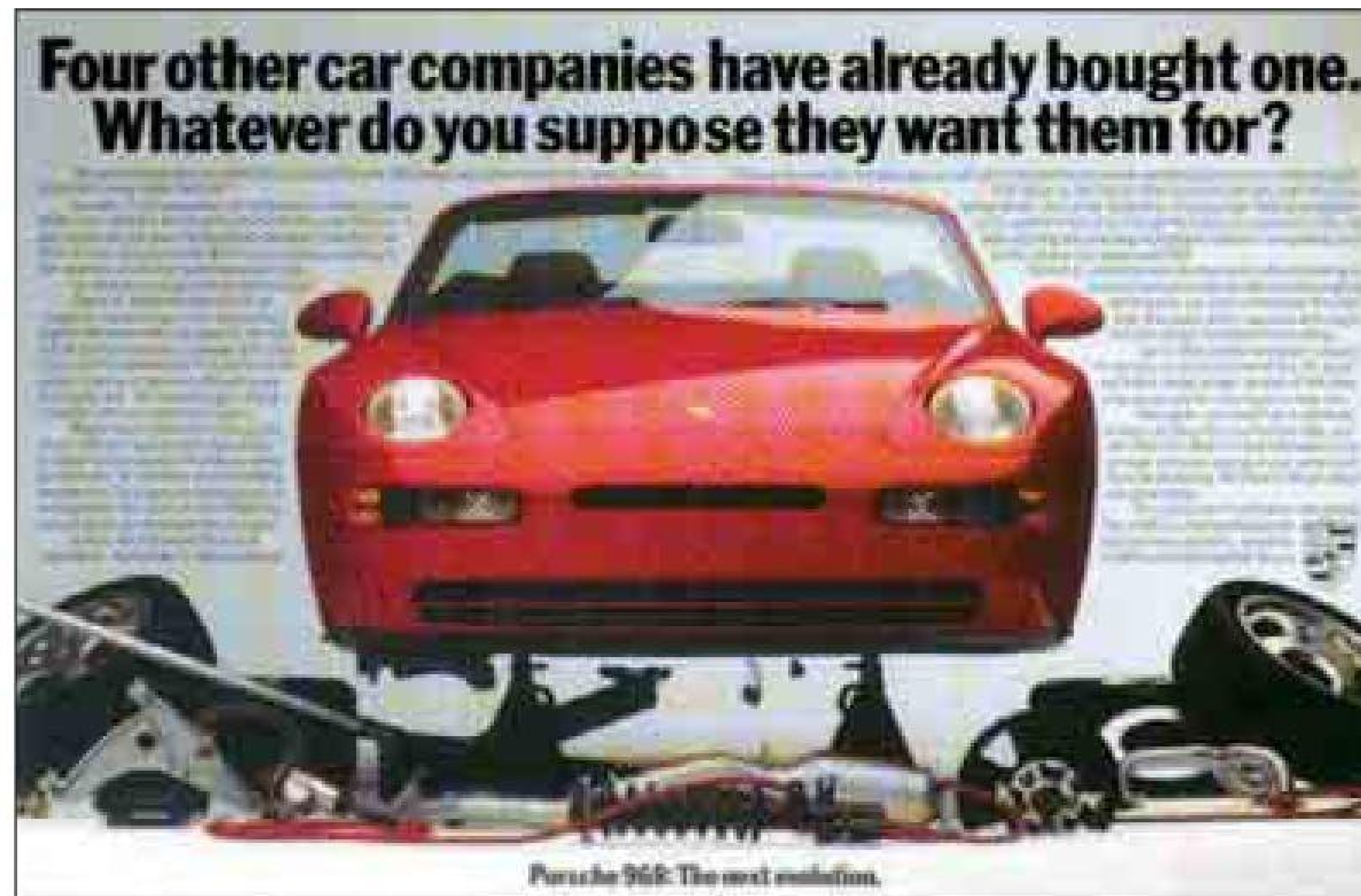
But *not* testing is dangerous too. Frito-Lay was so sure it understood consumers' snack preferences that it introduced a three-item cracker line without market testing. Even with network TV ad support, MaxSnax met with overwhelming consumer indifference. By the time Frito-Lay pulled the product from store shelves, it had lost $52 million. Market tests can be very expensive. Yet they can uncover problems that otherwise might go undetected and destroy the whole strategy.[30]

If a company follows the new-product development process carefully, the market test will provide a lot more information to the firm than to its competitors. Of course, the company must test specific variables rather than just vaguely testing whether a new idea will "sell." After the market test, the firm can estimate likely ROI for various strategies to determine whether the idea moves on to commercialization.

Some companies don't do market tests because they just aren't practical. In fashion markets, for example, speed is extremely important, and products are usually just tried in market. And durable products—which have high fixed production costs and long production lead times—may have to go directly to market. In these cases, it is especially important that the early steps be done carefully to reduce the chances for failure.[31]

Step 5: Commercialization

A product idea that survives this far can finally be placed on the market. First, the new-product people decide exactly which product form or line to sell. Then they complete the marketing mix—really a whole strategic plan. And top management has to approve an ROI estimate for the plan before it is implemented. Finally, the product idea emerges from the new-product development process—but success requires the cooperation of the whole company.



Firms often take apart competitors' products to look for ideas that they can apply or adapt in their own products.

Putting a product on the market is expensive. Manufacturing or service facilities have to be set up. Goods have to be produced to fill the channels of distribution, or people must be hired and trained to provide services. Further, introductory promotion is costly—especially if the company is entering a very competitive market.

Because of the size of the job, some firms introduce their products city by city or region by region—in a gradual "rollout"—until they have complete market coverage. Sprint used this approach in introducing its broadband wireless service that included a rooftop transmission device. Detroit, Phoenix, and San Francisco were targeted first. Rollouts also permit more market testing—although that is not their purpose. Rather, the purpose is to do a good job implementing the marketing plan. But marketing managers also need to pay close attention to control—to ensure that the implementation effort is working and that the strategy is on target.

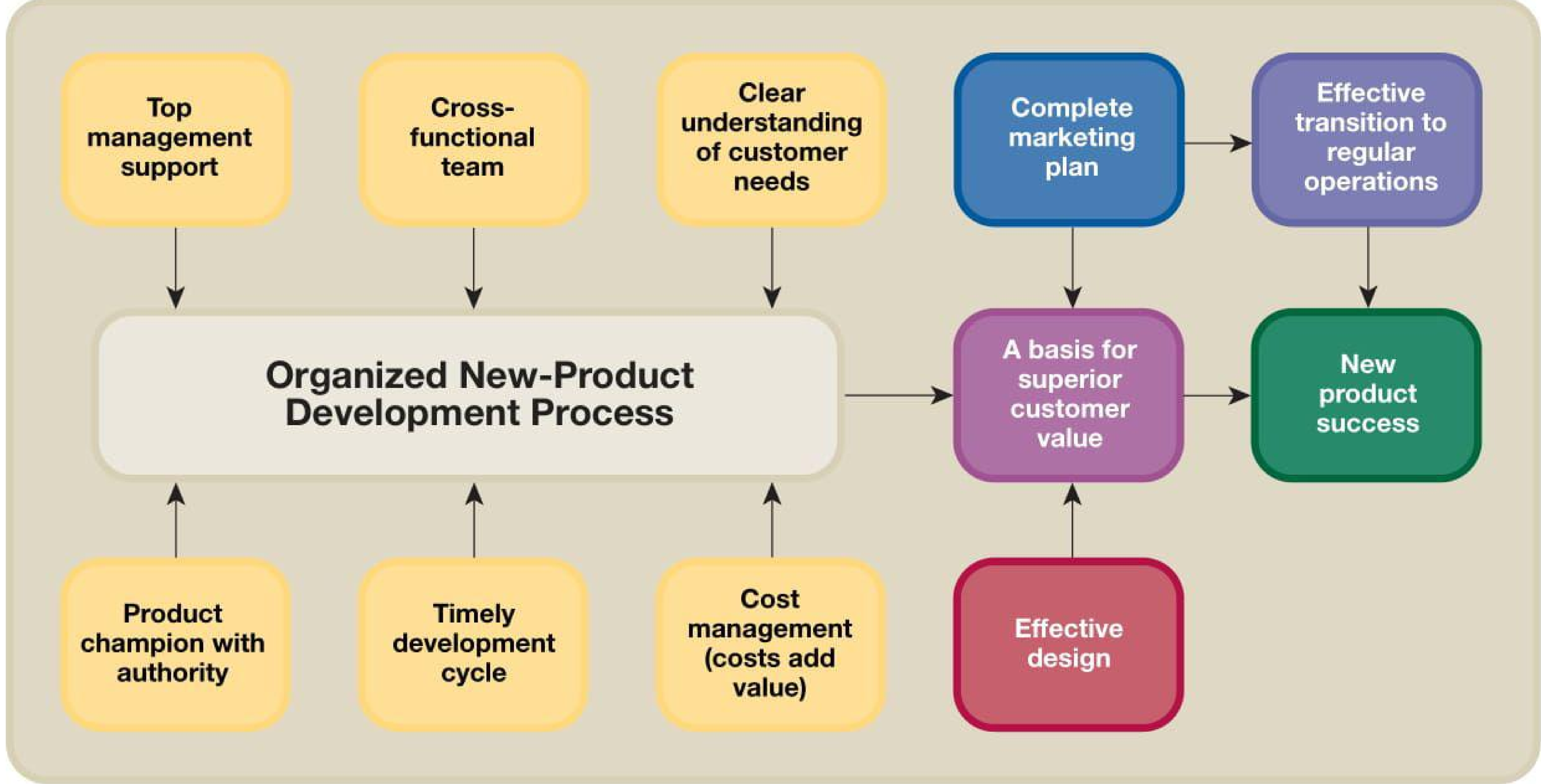
New-Product Development: A Total Company Effort

We've been discussing the steps in a logical, new-product development process. However, as shown in Exhibit 10-6, many factors can impact the success of the effort.

Top-level support is vital

Companies that are particularly successful at developing new goods and services seem to have one trait in common: enthusiastic top-management support for new-product development. New products tend to upset old routines that managers of established products often try in subtle but effective ways to maintain. So someone with top-level support, and authority to get things done, needs to be responsible for new-product development.[32]

Exhibit 10-6 New-Product Development Success Factors



Put someone in charge

In addition, rather than leaving new-product development to someone in engineering, R&D, or sales who happens to be interested in taking the initiative, successful companies put someone in charge. It may be a person, department, or team. But it's not a casual thing. It's a major responsibility of the job.

A new-product development department or team (committee) from different departments may help ensure that new ideas are carefully evaluated and profitable ones quickly brought to market. It's important to choose the right people for the job. Overly conservative managers may kill too many, or even all, new ideas. Or committees may create bureaucratic delays leading to late introduction and giving competitors a head start. A delay of even a few months can make the difference between a product's success or failure.

Market needs guide R&D effort

Many new-product ideas come from scientific discoveries and new technologies. That is why firms often assign specialists to study the technological environment in search of new ways to meet customers' needs. Many firms have their own R&D group that works on developing new products and new-product ideas. Even service firms have technical specialists who help in development work. For example, a bank thinking about offering customers a new set of investment alternatives must be certain that it can deliver on its promises. We've touched on this earlier, but the relationship between marketing and R&D warrants special emphasis.

The R&D effort is usually handled by scientists, engineers, and other specialists who have technical training and skills. Their work can make an important contribution to a firm's competitive advantage—especially if it competes in high-tech markets. However, technical creativity by itself is not enough. The R&D effort must be guided by the type of market-oriented new-product development process we've been discussing.

From the idea generation stage to the commercialization stage, the R&D specialists, the operations people, and the marketing people must work together to evaluate the feasibility of new ideas. They may meet in person, or communicate

with e-mail or intranet sites, or perhaps via teleconferencing or some other technology. There are many ways to share ideas. So it isn't sensible for a marketing manager to develop elaborate marketing plans for goods or services that the firm simply can't produce—or produce profitably. It also doesn't make sense for R&D people to develop a technology or product that does not have potential for the firm and its markets. Clearly, a balancing act is involved here. But the critical point is the basic one we've been emphasizing throughout the whole book: marketing-oriented firms seek to satisfy customer needs at a profit with an integrated, whole company effort.

A complicated, integrated effort is needed

Developing new products should be a total company effort. The whole process—involving people in management, research, production, promotion, packaging, and branding—must move in steps from early exploration of ideas to development of the product and marketing mix. Even with a careful development process, many new products do fail—usually because a company skips some steps in the process. Because speed can be important, it's always tempting to skip needed steps when some part of the process seems to indicate that the company has a "really good idea." But the process moves in steps—gathering different kinds of information along the way. By skipping steps, a firm may miss an important aspect that could make a whole strategy less profitable or actually cause it to fail.

Eventually, the new product is no longer new—it becomes just another product. In some firms, at this point the new-product people turn the product over to the regular operating people and go on to developing other new ideas. In other firms, the person who was the new-product champion continues with the product, perhaps taking on the broader responsibility for turning it into a successful business.

Need for Product Managers

Product variety leads to product managers

When a firm has only one or a few related products, everyone is interested in them. But when many new products are being developed, someone should be put in charge of new-product planning to be sure it is not neglected. Similarly, when a firm has products in several different product categories, management may decide to put someone in charge of each category, or each brand, to be sure that attention to these products is not lost in the rush of everyday business. **Product managers** or **brand managers** manage specific products—often taking over the jobs formerly handled by an advertising manager. That gives a clue to what is often their major responsibility—Promotion—since the products have already been developed by the new-product people. However, some brand managers start at the new-product development stage and carry on from there.

Product managers are especially common in large companies that produce many kinds of products. Several product managers may serve under a marketing manager. Sometimes these product managers are responsible for the profitable operation of a particular product's whole marketing effort. Then they have to coordinate their efforts with others—including the sales manager, advertising agencies, production and research people, and even channel members. This is likely to lead to difficulties if product managers have no control over the marketing strategy for other related brands or authority over other functional areas whose efforts they are expected to direct and coordinate.

To avoid these problems, in some companies the product manager serves mainly as a "product champion"—concerned with planning and getting the promotion effort implemented. A higher-level marketing manager with more authority

3M Sticks to Its Focus on Innovation

Minnesota Mining & Manufacturing (3M) is fast and successful in spinning out new products. This isn't just by chance. 3M's top executive set an objective that 30 percent of sales should come from products that didn't exist four years ago. You see the emphasis on innovation in even the quickest visit to 3M's website (www.3m.com). For example, current 3M innovations include radiant light film (for uses ranging from graphical signage to glittery toys), elastomers (which seal in aggressive chemicals in high-temperature settings), and electrostatic fibers (that filter dust out of heating vents). You can see why 3M says, "we are always new."

3M motivates innovation by staying close to customers, rewarding new-product champions, and sharing ideas among divisions. Teams from marketing, operations, and R&D screen new-product concepts for the ones with the highest profit potential. Then everyone works to bring the best ones to market fast. 3M's Scotch-Brite Never Rust Wool Soap Pads show how this approach can succeed. Consumers told 3M marketing researchers that they wanted an improved soap pad. Ordinary steel wool pads leave rust stains on sinks and tiny metal splinters in dishpan hands. 3M screens new products for their environmental impact, so the R&D people developed a pad using plastic fibers from recycled plastic bottles. Experts from 3M's abrasives division figured out how to coat the fibers with fine abrasives and biodegradable soap. Further marketing research refined the shape of the pads, and test markets evaluated details of the marketing plan. For example, tests confirmed that consumers liked the colorful package made from recycled paper and would pay more for Never Rust pads than they did for Brillo.

The managers varied the marketing plan for different countries. In mature markets such as the U.S. and Brazil where steel wool pads already had a large consumer base, the objective was to capture share. In Japan, where steel wool is not commonly used, the objective was to pioneer the market and attract new customers. In a firm renowned for innovation, the launch of Never Rust pads was one of 3M's most profitable ever.

3M is also serious about how its innovations affect consumer welfare. When managers learned that traces of a chemical in 3M's Scotchgard fabric protector might persist in the environment, they didn't wait for scientists to do more tests. They voluntarily pulled the popular product off the market—before they even knew if R&D could find a substitute chemical.[33]

www.mhhe.com/fourps

coordinates the efforts and integrates the marketing strategies for different products into an overall plan.

The activities of product managers vary a lot depending on their experience and aggressiveness and the company's organizational philosophy. Today companies are emphasizing marketing *experience*—because this important job takes more than academic training and enthusiasm. But it is clear that someone must be responsible for developing and implementing product-related plans—especially when a company has many products.[34]

Consumer packaged goods companies, like Nabisco, usually assign brand managers who are responsible for individual products. However, when there are a number of products in the same product category there is often a higher-level manager who ensures that the marketing program for the whole category is effective.

© The McGraw–Hill Companies, 2002

Conclusion

New-product planning is an increasingly important activity in a modern economy because it is no longer very profitable to just sell me-too products in highly competitive markets. Markets, competition, and product life cycles are changing at a fast pace.

The product life cycle concept is especially important to marketing strategy planning. It shows that a firm needs different marketing mixes—and even strategies—as a product moves through its cycle. This is an important point because profits change during the life cycle—with most of the profits going to the innovators or fast copiers.

We pointed out that a product is new to a firm if it is new in any way or to any target market. But the Federal Trade Commission takes a narrower view of what you can call "new."

New products are so important to business survival that firms need some organized process for developing them. We discuss such a process and emphasize that it requires a total company effort to be successful.

The failure rate of new products is high—but it is lower for better-managed firms that recognize product development and management as vital processes. Some firms appoint product managers to manage individual products and new-product teams to ensure that the process is carried out successfully.

Questions and Problems

1. Explain how industry sales and industry profits behave over the product life cycle.
2. Cite two examples of products that you feel are currently in each of the product life-cycle stages. Consider services as well as physical goods.
3. Explain how you might reach different conclusions about the correct product life-cycle stage(s) in the worldwide automobile market.
4. Explain why individual brands may not follow the product life-cycle pattern. Give an example of a new brand that is not entering the life cycle at the market introduction stage.
5. Discuss the life cycle of a product in terms of its probable impact on a manufacturer's marketing mix. Illustrate using personal computers.
6. What characteristics of a new product will help it to move through the early stages of the product life cycle more quickly? Briefly discuss each characteristic—illustrating with a product of your choice. Indicate how each characteristic might be viewed in some other country.
7. What is a new product? Illustrate your answer.
8. Explain the importance of an organized new-product development process and illustrate how it might be used for *(a)* a new hair care product, *(b)* a new children's toy, and *(c)* a new subscribers-only cable television channel.
9. Discuss how you might use the new-product development process if you were thinking about offering some kind of summer service to residents in a beach resort town.
10. Explain the role of product or brand managers. When would it make sense for one of a company's current brand managers to be in charge of the new-product development process? Explain your thinking.
11. If a firm offers one of its brands in a number of different countries, would it make sense for one brand manager to be in charge, or would each country require its own brand manager? Explain your thinking.
12. Discuss the social value of new-product development activities that seem to encourage people to discard products that are not all worn out. Is this an economic waste? How worn out is all worn out? Must a shirt have holes in it? How big?

Suggested Cases

3. Pillsbury's Häagen-Dazs
12. ChemTech
20. Outdoor World, Inc.

Computer-Aided Problem

10. **Growth Stage Competition**

AgriChem, Inc., has introduced an innovative new product—a combination fertilizer, weed killer, and insecticide that makes it much easier for soybean farmers to produce a profitable crop. The product introduction was quite successful, with 1 million units sold in the year of introduction. And AgriChem's profits are increasing. Total market demand is expected to grow at a rate of 200,000 units a year for the next five years. Even so, AgriChem's marketing managers are concerned about what will happen to sales and profits during this period.

Based on past experience with similar situations, they expect one new competitor to enter the market during each of the next five years. They think this competitive pressure will drive prices down about 6 percent a year. Further, although the total market is growing, they know that new competitors will chip away at AgriChem's market share—even with the 10 percent a year increase planned for the promotion budget. In spite of the competitive pressure, the marketing managers are sure that familiarity with AgriChem's brand will help it hold a large share of the total market and give AgriChem greater economies of scale than competitors. In fact, they expect that the ratio of profit to dollar sales for AgriChem should be about 10 percent higher than for competitors.

AgriChem's marketing managers have decided the best way to get a handle on the situation is to organize the data in a spreadsheet. They have set up the spreadsheet so they can change the "years in the future" value and see what is likely to happen to AgriChem and the rest of the industry. The starting spreadsheet shows the current situation with data from the first full year of production.

a. *Compare AgriChem's market share and profit for this year with what is expected next year—given the marketing managers' current assumptions. What are they expecting? (Hint: Set number of years in the future to 1.)*
b. *Prepare a table showing AgriChem's expected profit, and the expected industry revenue and profit, for the current year and the next five years. Briefly explain what happens to industry sales and profits and why. (Hint: Do an analysis to vary the number of years in the future value in the spreadsheet from a minimum of 0—the current year—to a maximum of 5. Display the three values requested.)*
c. *If market demand grows faster than expected—say, at 280,000 units a year—what will happen to AgriChem's profits and the expected industry revenues and profits over the next five years? What are the implications of this analysis?*

For additional questions related to this problem, see Exercise 10-3 in the *Learning Aid for Use with Basic Marketing*, 14th edition.