University of Southern California
Marshall School of Business

BUAD 307 Marketing Fundamentals
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SUMMARY OF **CLASSROOM MATERIAL**

PRODUCT

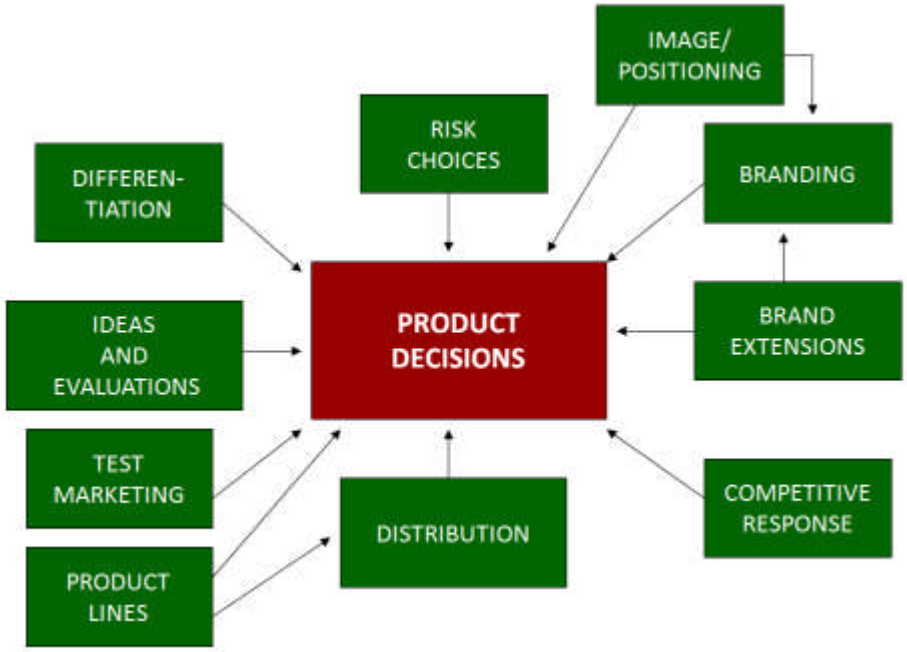
INTRODUCTION

Products come in several forms. Consumer products can be categorized as *convenience* goods, for which consumers are willing to invest very limited shopping efforts. Thus, it is essential to have these products readily available and have the brand name well known. *Shopping* goods, in contrast, are goods in which the consumer is willing to invest a great deal of time and effort. For example, consumers will spend a great deal of time looking for a new car or a medical procedure. *Specialty* goods are those that are of interest only to a narrow segment of the population—e.g., drilling machines. Industrial goods can also be broken down into subgroups, depending on their uses. It should also be noted that, within the context of marketing decisions, the term product refers to more than tangible goods—a service can be a product, too.

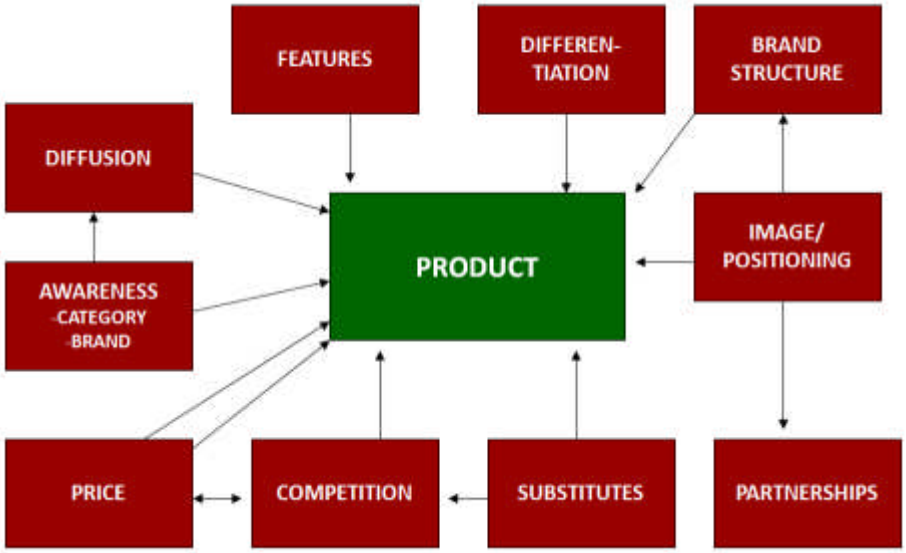
A firm's *product line* or lines refers to the assortment of similar things that the firm holds. Brother, for example, has both a line of laser printers and one of typewriters. In contrast, the firm's *product mix* describes the combination of different product lines that the firm holds. Boeing, for example, has both a commercial aircraft and a defense line of products that each take advantage of some of the same core competencies and technologies of the firm. Some firms have one very focused or narrow product line (e.g., KFC does *only* chicken right) while others maintain numerous lines that hopefully all have some common theme. This represents a *wide* product mix 3M, for example, makes a large assortment of goods that are thought to be related in the sense that they use the firm's ability to bond surfaces together. *Depth* refers to the variety that is offered within each product line. Maybelline offers a great deal of depth in lipsticks with subtle differences in shades while Morton Salt offers few varieties of its product.

Products may be differentiated in several ways. Some may be represented as being of superior quality (e.g., Maytag), or they may differ in more arbitrary ways in terms of styles—some people like one style better than another, while there is no real consensus on which one is the superior one. Finally, products can be differentiated in terms of offering different levels of service—for example, Volvo offers a guarantee of free, reliable towing anywhere should the vehicle break down. American Express offers services not offered by many other charge cards.

A number of interdependent considerations enter into decisions on branding:



Choices made regarding branding and/or positioning, for example, will affect distribution options available—that is, this will influence which wholesalers, retailers, and other distributors will be willing to carry the product on favorable terms. Brand positioning decisions will also influence the extent to which a brand can be "extended," i.e., the extent to which an existing brand name can be applied to a product category that is new for the firm.



NEW PRODUCT DEVELOLOPMENT

New product development tends to happen in stages. Although firms often go back and forth between these idealized stages, the following sequence is illustrative of the development of a new product:

- **New product strategy development.** Different firms will have different strategies on how to approach new products. Some firms have stockholders who want to minimize risk and avoid investing in too many new innovations. Some firms can only survive if they innovate frequently and have stockholders who are willing to take this risk. For example, Hewlett-Packard has to constantly invent new products since competitors learn to work around its patents and will be able to manufacture the products at a lower cost.
- **Idea generation.** Firms solicit ideas as to new products it can make. Ideas might come from customers, employees, consultants, or engineers. Many firms receive

a large number of ideas each year and can only invest in some of them.

- **Screening and evaluation:** Some products that after some analysis are clearly not feasible or are not consistent with the core competencies of the firm are eliminated.
- **Business analysis.** Ideas are now exposed to more rigorous analysis. Profit projections, risks, market size, and competitive response are considered. If promising, market research may be done.
- **Development:** The product is designed and manufacturing facilities are planned.
- **Market testing:** Frequently, firms will try to "test" a product in one region to see if it will sell in reality before it is released nationally and internationally. There is a lesser risk if the firm only commits money to advertising and other marketing efforts in one region. Retailers will also be more receptive in other parts of the country and world if it has been demonstrated that the product sold well in one region. The firm may also experiment with different prices for the product.
- **Commercialization:** Facilities to manufacture the product on a larger scale are now put into operation and the firm starts a national marketing campaign and distribution effort.

THE PRODUCT LIFE CYCLE

Products often go through a *life cycle*. Initially, a product is introduced. Since the product is not well known and is usually expensive (e.g., as microwave ovens were in the late 1970s), sales are usually limited. Eventually, however, many products reach a *growth* phase—sales increase dramatically. More firms enter with their models of the product. Frequently, unfortunately, the product will reach a *maturity* stage where little growth will be seen. For example, in the United States, almost every household has at least one color TV set. Some products may also reach a *decline* stage, usually because the product category is being replaced by something better. For example, typewriters experienced declining sales as more consumers switched to computers or other word processing equipment. The product life cycle is tied to the phenomenon of diffusion of innovation. When a new product comes out, it is likely to first be adopted by consumers who are more innovative than others—they are willing to pay a premium price for the new product and take a risk on unproven technology. It is important to be on the good side of innovators since many other later adopters will tend to rely for advice on the innovators who are thought to be more knowledgeable about new products for advice.

At later phases of the PLC, the firm may need to modify its market strategy. For example, facing a saturated market for baking soda in its traditional use, Arm ü Hammer launched a major campaign to get consumers to use the product to deodorize refrigerators. Deodorizing powders to be used before vacuuming were also created.

It is sometimes useful to think of products as being either *new* or *existing*. Many firms today rely increasingly on new products for a large part of their sales. New products can be new in several ways. They can be *new to the market*—no one else ever made a product like this before. For example, Chrysler invented the minivan. Products can also be new to the *firm*—another firm invented the product, but the firm is now making its own version. For example, IBM did not invent the personal computer, but entered after other firms showed the market to have a high potential. Products can be *new to the segment—e.g.,* cellular phones and pagers were first aimed at physicians and other price-insensitive segments. Later, firms decided to target the more price-sensitive mass market. A product can be new for *legal purposes.* Because consumers tend to be attracted to "new and improved" products, the Federal Trade Commission (FTC) only allows firms to put that label on reformulated products for six months after a significant change has been made.

DIFFUSION OF INNOVATION

The diffusion of innovation refers to the tendency of new products, practices, or ideas to spread among people. Usually, when new products or ideas come about, they are initially only adopted by a small group of people. Later, many innovations spread to other

people. The bell shaped curve frequently illustrates the rate of adoption of a new product. Cumulative adoptions are reflected by the S-shaped curve. The *saturation point* is the maximum proportion of consumers likely to adopt a product. In the case of refrigerators in the U.S., the saturation level is nearly one hundred percent of households. The figure will almost certainly be well below that for video games that, even when spread out to a large part of the population, will be of interest to far from everyone.

Several specific product categories have case histories that illustrate important issues in adoption. Until some time in the 1800s, few physicians bothered to scrub prior to surgery, even though new scientific theories predicted that small microbes not visible to the naked eye could cause infection. Younger and more progressive physicians began scrubbing early on, but they lacked the stature to make their older colleagues follow.

ATM cards spread relatively quickly. Since the cards were used in public, others who did not yet hold the cards could see how convenient they were. Although some people were concerned about security, the convenience factors seemed to be a decisive factor in the "tug-of-war" for and against adoption.

The case of credit cards was a bit more complicated and involved a "chickenand-egg" paradox. Accepting credit cards was not a particularly attractive option for retailers until they were carried by a large enough number of consumers. Consumers, in contrast, were not particularly interested in cards that were not accepted by a large number of retailers. Thus, it was necessary to "jump start" the process, signing up large corporate accounts, under favorable terms, early in the cycle, after which the cards became worthwhile for retailers to accept.

Rap music initially spread quickly among urban youths in large part because of the low costs of recording. Later, rap music became popular among a very different segment, suburban youths, because of its apparently authentic depiction of an exotic urban lifestyle.

Hybrid corn was adopted only slowly among many farmers. Although hybrid corn provided yields of about 20% more than traditional corn, many farmers had difficulty believing that this smaller seed could provide a superior harvest. They were usually reluctant to try it because a failed harvest could have serious economic consequences, including a possible loss of the farm. Agricultural extension agents then sought out the most progressive farmers to try hybrid corn, also aiming for farmers who were most respected and most likely to be imitated by others. Few farmers switched to hybrid corn outright from year to year. Instead, many started out with a fraction of their land, and gradually switched to 100% hybrid corn when this innovation had proven itself useful.

Several forces often work against innovation. One is risk, which can be either social or financial. For example, early buyers of the CD player risked that few CDs would be recorded before the CD player went the way of the 8 track player. Another risk is being perceived by others as being weird for trying a "fringe" product or idea. For example, Barbara Mandrel sings the song "I Was Country When Country Wasn't Cool." Other sources of resistance include the initial effort needed to learn to use new products (e.g., it takes time to learn to meditate or to learn how to use a computer) and concerns about compatibility with the existing culture or technology. For example, birth control is incompatible with religious beliefs that predominate in some areas, and a computer database is incompatible with a large, established card file.

Innovations come in different degrees. A *continuous* innovation includes slight improvements over time. Very little usually changes from year to year in automobiles, and even automobiles of the 1990s are driven much the same way that automobiles of the 1950 were driven. A *dynamically continuous* innovation involves some change in technology, although the product is used much the same way that its predecessors were used—e.g., jet vs. propeller aircraft. A *discontinuous* innovation involves a product that fundamentally changes the way that things are done—e.g., the fax and photocopiers. In general, discontinuous innovations are more difficult to market since greater changes are required in the way things are done, but the rewards are also often significant.

Several factors influence the speed with which an innovation spreads. One issue is relative advantage (i.e., the ratio of risk or cost to benefits). Some products, such as cellular

phones, fax machines, and ATM cards, have a strong relative advantage. Other products, such as automobile satellite navigation systems, entail some advantages, but the cost ratio is high. Lower priced products often spread more quickly, and the extent to which the product is *trialable* (farmers did not have to plant all their land with hybrid corn at once, while one usually has to buy a cellular phone to try it out) influence the speed of diffusion. Finally, the extent of switching difficulties influences speed—many offices were slow to adopt computers because users had to learn how to use them.

Some cultures tend to adopt new products more quickly than others, based on several factors:

- *Modernity:* The extent to which the culture is receptive to new things. In some countries, such as Britain and Saudi Arabia, tradition is greatly valued—thus, new products often don't fare too well. The United States, in contrast, tends to value progress.
- *Homophily:* The more similar to each other that members of a culture are, the more likely an innovation is to spread—people are more likely to imitate similar than different models. The two most rapidly adopting countries in the World are the U.S. and Japan. While the U.S. interestingly scores very low, Japan scores high.
- *Physical distance:* The greater the distance between people, the less likely innovation is to spread.
    - *Opinion leadership:* The more opinion leaders are valued and respected, the more likely an innovation is to spread. The style of opinion leadersmoderates this influence, however. In less innovative countries, opinion leaders tend to be more conservative, i.e., to reflect the local norms of resistance.

It should be noted that innovation is not always an unqualifiedly good thing. Some innovations, such as infant formula adopted in developing countries, may do more harm than good. Individuals may also become dependent on the innovations. For example, travel agents who get used to booking online may be unable to process manual reservations.

Sometimes innovations are *dis*adopted. For example, many individuals disadopt cellular phones if they find out that they don't end up using them much.

BRANDS AND BRANDING

An essential issue in product management is branding. *Brand equity* refers to the effective value of a brand. This value—often resulting from a history of advertising and a reputation for quality that a manufacturer has established among consumers over time—results from the increased profits that can be made by selling products and/or services under the brand name over and above what could be obtained by selling a generic, un-branded product. In practice, increased profits might result from both a higher price that can be charged and the greater volume that can be sold with the brand name. In some countries, accountings standards allow firms to maintain brand equity on their balance sheets as an asset. In the United States, generally accepted accounting principles generally provide that advertising expenses must be "expensed" in the period in which they are made. However, if one firm acquires another and/or buys a brand from another firm, the "good will" component of the purchase price can be depreciated over time.

Different firms have different policies on the branding on their products. While 3M puts its brand name on a great diversity of products, Procter & Gamble, on the opposite extreme, maintains a separate brand name for each product. In general, the use of *brand extensions* should be evaluated on the basis of the compatibility of various products—can the same brand name represent different products without conflict or confusion? Coca Cola for many years resisted putting its coveted brand name on a diet soft drink. In the old days, available sweeteners such as saccharin added an undesirable aftertaste, implying a clear sacrifice in taste for the reduction in calories. Thus, to avoid damaging the brand name Coca Cola, Coke instead named its diet cola Tab. Only after NutraSweet was introduced was the brand extension allowed. Research shows that consumers are more receptive to brand extensions when (1) the company appears to have the expertise to make the product [McDonald's was not thought as credible as a photo-finishing service], (2) the products are congruent (compatible), and (3) the brand extension

is not seen as being exploitative of a high quality brand name [e.g., one should not use a premium brand name like Heineken to make a trivially easy product like popcorn].

In many markets, brands of different strength compete against each other. At the top level are *national* or *international* brands. A large investment has usually been put into extensive brand building—including advertising, distribution and, if needed, infrastructure support. Although some national brands are better regarded than others—e.g., Dell has a better reputation than e-Machines—the national brands usually sell at higher prices than to *regional* and *store* brands. Regional brands, as the name suggests, are typically sold only in one area. In some cases, regional distribution is all that firms can initially accomplish with the investment capital and other resources that they have. This means that advertising is usually done at the regional level. This limits the advertising opportunities and thus the effect of advertising. In some cases, regional brands may eventually grow into national ones. For example, Snapple® was a regional beverage. While a regional beverage, it became so successful that it was able to attract investments to allow a national launch. In a similar manner, some brands often start in a narrow niche—either nationally or regionally—and may eventually work their way up to a more inclusive national brand. For example, Mars was originally a small brand that focused on liquor filled chocolate candy. Eventually, the firm was able to expand. *Store,* or *private label* brands are, as the name suggests, brands that are owned by retail store chains or consortia thereof. (For example, Vons and Safeway have the same corporate parent and both carry the "Select" brand). Typically, store brands sell at lower prices than do national brands. However, because the chains do not have the external brand building costs, the margins on the store brands are often higher. Retailers have a great deal of power because they control the placement of products within the store. Many place the store brand right next to the national brand and place a sign highlighting the cost savings on the store brand.

Co-branding involves firms using two or more brands together to maximize appeal to consumers. Some ice cream makers, for example, use their own brand name in addition to naming the brands of ingredients contained. Sometimes, this strategy may help one brand at the expense of the other. It is widely believed, for example, that the "Intel inside" messages, which Intel paid computer makers to put on their products and packaging, reduced the value of the computer makers' brand names because the emphasis was now put on the Intel component.

Certain "peripheral" characteristics of products may "signal" quality or other value to consumers. For some products, packaging accounts for a large part of the total product manufacturing cost. Long warranties often signal to consumers that the product is of good quality since the manufacturer is willing to take responsibility for its functioning.

Genericide refers to a situation where a brand name, in the informal day-to-day speech of consumers, comes to be synonymous with the product category. Many people, for example, refer to a "Xerox" without meaning to specify that the copier would necessarily be made manufactured by Xerox. It is common to refer to a "Kleenex" even though one would be just as happy with a "facial" tissue made by another manufacturer. People have even gone so far as to turn some brand names into verbs. People may, for example, promise to "Fed Ex" something to someone who needs the delivery the next day without meaning to promise that this exact shipper will be used. Because Google has an overwhelming market share today, someone who refers go "Googleing" someone or something probably intends to use the search engine implied, but other search engines were to gain significant market share in the future, it is not clear that the recently invented verb would exclusive to the search engine from which it is named.

Although having a brand name used to describe the product category might seem like a blessing at first, the catch is that a trademark may be lost if the general population begins to use the term indiscriminately to refer to the product category regardless of the actual brand. U.S. trademark law requires registrants of trademarks to "vigorously defend" these trademarks. Therefore, for example, Coca Cola® may send representatives to warn restaurants that serve Pepsi® that they will be sued if a customer who asks for "Coke®" is served Pepsi® without being told that the drink actually available is Pepsi®.

THE PRODUCT-SERVICE CONTINUUM

There is no clear distinction between a “pure” tangible product and a service. Most products contain some of both. A computer, for example, is a tangible product, but it often comes with a warranty and software updates.