By providing a solution for customers, the product is the central force of business marketing strategy. The firm’s ability to put together a line of products and services that provide superior value to customers is the heart of business marketing management. After reading this chapter, you will understand:

1. how to build a strong business-to-business brand.

2. the strategic importance of providing competitively superior value to customers.

3. the various types of industrial product lines and the value of product positioning.

4. a strategic approach for managing products across the stages of the technology adoption life cycle.
To spur growth at General Electric, CEO Jeffrey Immelt told GE’s 11 business unit managers to each take 60 days and return with five ideas for growth that would generate at least $10 million in sales within three years. Of the 55 ideas proposed, 35 were funded, ranging from wind-powered energy systems to sophisticated airport security systems using medical scanning technology. A business marketer’s marketplace identity is established through its brand and through the products and services it offers. For example, General Electric’s new branding campaign—“Ecomagination”—signals to the market that the firm is very serious about its responsibilities to the environment and is offering solutions such as wind, energy, and water filtration equipment as well as clean-coal services. Because brands constitute one of the most valuable intangible assets that firms possess, branding has emerged as a priority to marketing executives, CEOs, and the financial community.

Product management is directly linked to market analysis and market selection. Products are developed to fit the needs of the market and are modified as those needs change. Drawing on such tools of demand analysis as business market segmentation and market potential forecasting, the marketer evaluates opportunities and selects profitable market segments, thus determining the direction of product policy. Product policy cannot be separated from market selection decisions. In evaluating potential product/market fits, a firm must evaluate new market opportunities, determine the number and aggressiveness of competitors, and gauge its own strengths and weaknesses. The marketing function assumes a lead role in transforming an organization’s distinctive skills and resources into products and services that enjoy positional advantages in the market.

This chapter first explores the nature of the brand-building process and the way in which a strong brand can sharpen the focus and energize the performance of the firm. Second, it examines product quality and value from the customer’s perspective and directly links them to business marketing strategy. Third, because industrial products can assume several forms, the chapter describes industrial product-line options, while offering an approach for positioning and managing products in high-technology markets.

Building a Strong B2B Brand

Although consumer packaged-goods companies like Procter & Gamble (P&G), Coca-Cola, and Nestle have excelled by developing a wealth of enduring and highly profitable brands, some of the most valuable and powerful brands belong to business-to-business firms: IBM, Microsoft, General Electric, Intel, Hewlett-Packard, Cisco, Google, Oracle, Canon, Siemens, Caterpillar, and a host of others. For most business marketers, the company name is the brand, so the key questions become: “What do you want your company name to stand for? and What do you want it to mean in the mind of the customer?”

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David Aaker says, “Brand equity is a set of brand assets and liabilities linked to a brand, its name, and symbol that add to or subtract from the value provided by a product or service and/or to that firm’s customers.” As we will explore, the assets and liabilities that impact brand equity include brand loyalty, name awareness, perceived quality and other brand associations, and proprietary brand assets (for example, patents). A brand, then, is a name, sign, symbol, or logo that identifies the products and services of one firm and differentiates them from competitors.

Providing a rich and incisive perspective, Kevin Lane Keller defines customer-based brand equity (CBBE) as the differential effect that customers’ brand knowledge has on their response to marketing activities and programs for that brand. The basic premise of his CBBE model is that the power of a brand lies in “what consumers have learned, felt, seen, and heard about the brand over time.” So, the power of a brand is represented by all the thoughts, feelings, perceptions, images, and experiences that become linked to the brand in the minds of customers.

Brand-Building Steps

The CBBE model lays out a series of four steps for building a strong brand (see Figure 8.1, right side): (1) develop deep brand awareness or a brand identity; (2) establish the meaning of the brand through unique brand associations (that is, points of difference); (3) elicit a positive brand response from customers through marketing programs; and (4) build brand relationships with customers, characterized by intense loyalty. Providing the foundation for successful brand management is the set of

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4This section is based on Kevin Lane Keller, “Building Customer-Based Brand Equity,” Marketing Management 10 (July/August 2001): pp. 15–19.
brand-building blocks (see Figure 8.1, left side) aligned with the branding ladder—
salience, performance, imagery, judgments, feelings, and resonance.

**Brand Identity**  To achieve the right identity for a brand, the business marketer
must create brand salience with customers. **Brand salience** is tied directly to brand
awareness: How often is the brand evoked in different situations? What type of cues
or reminders does a customer need to recognize a brand? **Brand awareness** refers to
the customer’s ability to recall or recognize a brand under different conditions. The
goal here is to ensure that customers understand the particular product or service cat-
egory where the brand competes by creating clear connections to the specific prod-
ucts or services that are solely under the brand name.

**Brand Meaning**  **Brand positioning** involves establishing unique brand associa-
tions in the minds of customers to differentiate the brand and establish competitive
superiority. Although a multitude of different types of brand associations are pos-
sible, brand meaning can be captured by examining two broad categories: (1) **brand
performance** —the way in which the product or service meets customers’ more
functional needs (for example, quality, price, styling, and service effectiveness) and
(2) **brand imagery** —the ways in which the brand attempts to meet customers’ more
abstract psychological or social needs.

Brand positioning should incorporate both points of parity and points of dif-
fERENCE in the customer value proposition (see Chapter 4). “Points of difference are
strong, favorable, unique brand associations that drive customers’ behavior; points
of parity are those associations where the brand ‘breaks even’ with competitors and
negates their intended points of difference.”

Strong business-to-business brands like Cisco, IBM, Google, and FedEx have clearly established strong, favorable (that is, valuble to customers), and unique brand associations with customers.

**Brand Response**  As a branding strategy is implemented, special attention should
be directed to how customers react to the brand and the associated marketing
activities. Four types of **customer judgments** are particularly vital to the creation of
a strong brand (in ascending order of importance):

1. **Quality** —the customer’s attitudes toward a brand’s perceived quality as well as
   their perceptions of value and satisfaction;
2. **Credibility** —the extent to which the brand as a whole is perceived by customers
   as credible in terms of expertise, trustworthiness, and likeability;
3. **Consideration set** —the degree to which customers find the brand to be an
   appropriate option worthy of serious consideration;
4. **Superiority** —the extent to which customers believe that the brand offers unique
   advantages over competitors’ brands.

**Feelings** relate to the customers’ emotional reaction to the brand and include
numerous types that have been tied to brand building, including warmth, fun,

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9Kevin Lane Keller, Brian Sternthal, and Alice Tybout, “Three Questions You Need to Ask About Your Brand,” *Harvard

excitement, and security. For example, Apple’s brand might elicit feelings of excitement (customers are energized by the brand and believe that the brand is cool); IBM or FedEx may evoke feelings of security (the brand produces a feeling of comfort or self-assurance); and Cisco’s branding campaign, “Welcome to the Human Network,” might elicit warmth (the brand makes customers feel peaceful). Cisco’s vice president--corporate marketing, Marilyn Mersereau, says, “Instead of being a product player with the ‘Powered by Cisco’ campaign, we’re trying to position Cisco to be a platform for your life experience,” educating customers about the ways Cisco makes it easier for people to connect with one another via the Web.¹¹

**Forging Brand Relationships** An examination of the level of personal identification and the nature of the relationship a customer has formed with the brand is the final step in the brand-building process. **Brand resonance** represents the strength of the psychological bond that a customer has with a brand and the degree to which this connection translates into loyalty, attachment, and active engagement with the brand. Keller observes, “Brand resonance reflects a completely harmonious relationship between customers and the brand. . . . The strongest brands will be the ones to which those consumers become so attached that they, in effect, become evangelists and actively seek means to interact with the brand and share their experiences with others.”¹²

**A Systems Model for Managing a Brand**

To build and properly manage brand equity, Kevin Lane Keller and Donald R. Lehman provide an integrative model that can be used to isolate key dimensions of the brand management process.¹³ (See Figure 8.2.)

**Company Actions** A controllable element for the business marketer in creating brand value concerns the type and amount of marketing expenditures (for example, dollars spent on advertising or channel partner development) as well as the clarity, distinctiveness, and consistency of the marketing strategy, over time and across activities. Strong brands receive proper R&D and marketing support and that support is sustained over time.

**What Customers Think and Feel** As we have seen, the “brand ladder” follows an order from awareness and brand associations to attachment and intense, active loyalty. Of course, the actions of competitors as well as environmental conditions can influence how customers feel about a brand (for example, Microsoft poses a challenge to Intuit, UPS challenges FedEx, and Apple’s iPhone poses a threat to Research in Motion’s BlackBerry). Strong brands stay relevant and excel at providing the benefits that matter the most to customers.¹⁴

**What Customers Do** The primary payoff from positive customer thoughts and feelings is reflected in the purchases they make. Strong brands provide a host of

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FIGURE 8.2  |  A SYSTEMS MODEL OF BRAND ANTECEDENTS AND CONSEQUENCES

possible benefits to a firm such as greater customer loyalty, less vulnerability to competitive actions, higher profit margins, and greater cooperation and support from channel partners.

**How Financial Markets React** A host of business-to-business companies have launched brand-building initiatives, but do such investments generate positive returns? Some recent research on the brand attitude of buyers in evaluating computer-related firms provides some answers. Brand attitude is a component and indicator of brand equity. **Brand attitude** is defined as the percentage of organizational buyers who have a positive image of a company minus those with a negative opinion. This study found that changes in brand attitude are associated with stock market performance and tend to lead accounting financial performance (that is, an increase in brand attitude will be reflected in improved financial performance three to six months later).

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In short, the research demonstrates that investments in building brand attitude for high-technology firms do indeed pay off and increase the firm’s value.

In another intriguing study, Thomas J. Madden, Frank Fehle, and Susan Fournier provide empirical evidence of the link between branding and shareholder value creation. They found that a portfolio of brands identified as strong by the Interbrand/\textit{Business Week} valuation method displays significant performance advantages compared to the overall market. “Firms that have developed strong brands create value for their shareholders by yielding returns that are greater in magnitude than a relevant market benchmark, and perhaps more important, do so with less risk.”

### Product Quality and Customer Value

Rising customer expectations make product quality and customer value important strategic priorities. On a global scale, many international companies insist that suppliers, as a prerequisite for negotiations, meet quality standards set out by the Geneva-based International Standards Organization (ISO). These quality requirements, referred to as \textit{ISO-9000 standards}, were developed for the European Community but have gained a global following. Certification requires a supplier to thoroughly document its quality-assurance program. The certification program is becoming a seal of approval to compete for business not only overseas but also in the United States. For instance, the Department of Defense employs ISO standards in its contract guidelines. Although Japanese firms continue to set the pace in the application of sophisticated quality-control procedures in manufacturing, companies such as Kodak, AT&T, Xerox, Ford, Hewlett-Packard, Intel, GE, and others have made significant strides.

The quest for improved product quality touches the entire supply chain as these and other companies demand improved product quality from their suppliers, large and small. For example, GE has an organization-wide goal of achieving Six Sigma quality, meaning that a product would have a defect level of no more than 3.4 parts per million. Using the Six Sigma approach, GE measures every process, identifies the variables that lead to defects, and takes steps to eliminate them. GE also works directly to assist suppliers in using the approach. Overall, GE reports that Six Sigma has produced striking results—cost savings in the billions and fundamental improvements in product and service quality. Recently, GE has centered its Six Sigma efforts on functions that “teach customers,” such as marketing and sales.

### Meaning of Quality

The quality movement has passed through several stages. Stage one centered on conformance to standards or success in meeting specifications. But conformance quality or zero defects do not satisfy a customer if the product embodies the wrong features.

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Part IV Formulating Business Marketing Strategy

Stage two emphasized that quality was more than a technical specialty and that pursuing it should drive the core processes of the entire business. Particular emphasis was given to total quality management and measuring customer satisfaction. However, customers choose a particular product over competing offerings because they perceive it as providing superior value—the product’s price, performance, and service render it the most attractive alternative. Stage three, then, examines a firm’s quality performance relative to competitors and examines customer perceptions of the value of competing products. The focus here is on market-perceived quality and value versus that of competitors. Moreover, attention shifts from zero defects in products to zero defections of customers (that is, customer loyalty). Merely satisfying customers who have the freedom to make choices is not enough to keep them loyal.21

Meaning of Customer Value

Strategy experts Dwight Gertz and João Baptista suggest that “a company’s product or service is competitively superior if, at price equality with competing products, target segments always choose it. Thus, value is defined in terms of consumer choice in a competitive context.”22 In turn, the value equation includes a vital service component. For the service component, business marketing strategists must “recognize that specifications aren’t just set by a manufacturer who tells the customer what to expect; instead, consumers also may participate in setting specifications.” Frontline sales and service personnel add value to the product offering and the consumption experience by meeting or, indeed, exceeding the customer’s service expectations.23 Customer value, then, represents a “business customer’s overall assessment of a relationship with a supplier based on perceptions of benefits received and sacrifices made.”24

Benefits Customer benefits take two forms (Figure 8.3):

1. Core benefits—the core requirements (for example specified product quality) for a relationship that suppliers must fully meet to be included in the customer’s consideration set;

2. Add-on benefits—attributes that differentiate suppliers, go beyond the basic denominator provided by all qualified vendors, and create added value in a buyer-seller relationship (for example, value-added customer service).

Sacrifices Consistent with the total cost perspective that business customers emphasize (Chapter 2), sacrifices include (1) the purchase price, (2) acquisition costs (for example, ordering and delivery costs), and (3) operations costs (for example, defect-free incoming shipments of component parts reduces operations costs).

What Matters Most? Based on a large study of nearly 1,000 purchasing managers across a wide variety of product categories in the United States and Germany, Ajay Menon, Christian Homburg, and Nikolas Beutin uncovered some rich insights into customer value in business-to-business relationships. 

**Add-on Benefits** First, the research demonstrates that add-on benefits more strongly influence customer value than do core benefits. Why? All qualified suppliers perform well on core benefits, so add-on benefits tend to be the differentiator for customer value as customers choose among competing offerings. Therefore, business marketers can use value-added services or joint working relationships that influence add-on benefits to strengthen customer relationships. For example, a leading manufacturer of tires for earthmoving equipment offers free consulting services that help customers design maintenance procedures that yield significant cost savings.

**Trust** Second, the study reinforces the vital role of trust in a business relationship (see Chapter 4), demonstrating, in fact, that trust has a stronger impact on core benefits than product characteristics.

**Reducing Customer’s Costs** Third, the results highlight the importance of marketing strategies that are designed to assist the customer in reducing operations costs. The research team observes:

> Ensuring on-time delivery of components and raw materials, getting involved in the customer firm’s manufacturing and R&D strategy-making processes, and deploying resources needed to ensure a smooth relationship with the customer will help reduce the customer’s operations costs.

By pursuing such initiatives, the business marketer does not have to rely solely on price to demonstrate and deliver value to the customer.

**Product Support Strategy: The Service Connection**

The marketing function must ensure that every part of the organization focuses on delivering superior value to customers. Business marketing programs involve a number of critical components that customers carefully evaluate: tangible products, service support, and ongoing information services both before and after the sale. To provide value and to successfully implement these programs, the business marketing firm must carefully coordinate activities among personnel in product management, sales, and service. For example, to customize a product and delivery schedule for an important customer requires close coordination among product, logistics, and sales personnel. Moreover, some customer accounts might require special field-engineering, installation, or equipment support, thereby increasing the required coordination between sales and service units.

Post-purchase service is especially important to buyers in many industrial product categories ranging from computers and machine tools to custom-designed component parts. Responsibility for service support, however, is often diffused throughout various departments, such as applications engineering, customer relations, or service administration. Significant benefits accrue to the business marketer who carefully manages and coordinates product, sales, and service connections to maximize customer value.

**Product Policy**

Product policy involves the set of all decisions concerning the products and services that the company offers. Through product policy, a business marketing firm attempts to satisfy customer needs and to build a sustainable competitive advantage by capitalizing on its core competencies. This section explores the types of industrial product lines and the importance of anchoring product-management decisions on an accurate definition of the product market. A framework is also provided for assessing product opportunities on a global scale.

**Types of Product Lines Defined**

Because product lines of industrial firms differ from those of consumer firms, classification is useful. Industrial product lines can be categorized into four types:

1. **Proprietary or catalog products.** These items are offered only in certain configurations and produced in anticipation of orders. Product-line decisions concern adding, deleting, or repositioning products in the line.

2. **Custom-built products.** These items are offered as a set of basic units, with numerous accessories and options. For example, NCR offers a line of retail

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workstations used by large customers like Wal-Mart and 7-Eleven stores as well as by smaller businesses. The basic workstation can be expanded to connect to scanners, check readers, electronic payment devices, and other accessories to meet a business’s particular needs. The firm’s wide array of products provides retailers with an end-to-end solution, from data warehousing to the point-of-service workstation at checkout. The marketer offers the organizational buyer a set of building blocks. Product-line decisions center on offering the proper mix of options and accessories.

3. **Custom-designed products.** These items are created to meet the needs of one or a small group of customers. Sometimes the product is a unique unit, such as a power plant or a specific machine tool. In addition, some items produced in relatively large quantities, such as an aircraft model, may fall into this category. The product line is described in terms of the company’s capability, and the consumer buys that capability. Ultimately, this capability is transformed into a finished good. For example, after canvassing airlines around the world, Airbus detected enough interest in a super jumbo jet to proceed with development.\(^{30}\)

4. **Industrial services.** Rather than an actual product, the buyer is purchasing a company’s capability in an area such as maintenance, technical service, or management consulting. (Special attention is given to services marketing in Chapter 10.)

All types of business marketing firms confront product policy decisions, whether they offer physical products, pure services (no physical product), or a product-service combination.\(^{31}\) Each product situation presents unique problems and opportunities for the business marketer; each draws on a unique capability. Product strategy rests on the intelligent use of corporate capability.

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**Defining the Product Market**

Accurately defining the product market is fundamental to sound product-policy decisions.\(^{32}\) Careful attention must be given to the alternative ways to satisfy customer needs. For example, many different products could provide competition for personal computers. Application-specific products, such as enhanced pocket pagers and smart phones that send e-mail and connect to the Web, are potential competitors. A wide array of information appliances that provide easy access to the Internet also pose a threat. In such an environment, Regis McKenna maintains, managers “must look for opportunities in—and expect competition from—every possible direction. A company with a narrow product concept will move through the market with blinders on, and it is sure to run into trouble.”\(^{33}\) By excluding products and technology that compete for the same end-user needs, the product strategist can quickly become out of touch with the market. Both customer needs and the ways of satisfying those needs change.

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\(^{33}\)McKenna, *Relationship Marketing*, p. 184.
Product Market  A product market establishes the distinct arena in which the business marketer competes. Four dimensions of a market definition are strategically relevant:

1. Customer function dimension. This involves the benefits that are provided to satisfy the needs of organizational buyers (for example, mobile messaging).

2. Technological dimension. There are alternative ways a particular function can be performed (for example, cell phone, pager, notebook computer).

3. Customer segment dimension. Customer groups have distinct needs that must be served (for example, sales representatives, physicians, international travelers).

4. Value-added system dimension. Competitors serving the market can operate along a sequence of stages. The value-added system for wireless communication includes equipment providers, such as Nokia and Motorola, and service providers, like Verizon and AT&T. Analysis of the value-added system may indicate potential opportunities or threats from changes in the system (for example, potential alliances between equipment and service providers).

Planning for Today and Tomorrow  Competition to satisfy the customer’s need exists at the technology level as well as at the supplier or brand level. By establishing accurate product–market boundaries, the product strategist is better equipped to identify customer needs, the benefits sought by the market segment, and the turbulent nature of competition at both the technology and supplier or brand levels. Derek Abell offers these valuable strategy insights:

- Planning for today requires a clear, precise definition of the business—a delineation of target customer segments, customer functions, and the business approach to be taken; planning for tomorrow is concerned with how the business should be redefined for the future.
- Planning for today focuses on shaping up the business to meet the needs of today’s customers with excellence. It involves identifying factors that are critical to success and smothering them with attention; planning for tomorrow can entail reshaping the business to compete more effectively in the future.

Seeing What’s Next  Strategy experts also argue provocatively that many firms are overlooking three important customer groups that may present the greatest opportunity for explosive growth:

- Nonconsumers who may lack the specialized skills, training, or resources to purchase the product or service;
- Undershot customers for whom existing products are not good enough;
- Overshot customers for whom existing products provide more performance than they can use.

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Planning Industrial Product Strategy

Formulating a strategic marketing plan for an existing product line is the most vital part of a company’s marketing planning efforts. Having identified a product market, attention now turns to planning product strategy. Product-positioning analysis provides a useful tool for charting the strategy course.

Product Positioning

Once the product market is defined, a strong competitive position for the product must be secured. Product positioning represents the place that a product occupies in a particular market; it is found by measuring organizational buyers’ perceptions and preferences for a product in relation to its competitors. Because organizational buyers perceive products as bundles of attributes (for example, quality, service), the product strategist should examine the attributes that assume a central role in buying decisions.

The Process

Observe from Figure 8.4 that the positioning process begins by identifying the relevant set of competing products (Step 1) and defining those attributes that are determinant (Step 2)—attributes that customers use to differentiate among the alternatives.

B2B Top Performers

BASF: Using Services to Build a Strong Brand

BASF AG, headquartered in Germany, is the world’s largest chemical company, with global sales over $33 billion and North American sales of $8 billion. Consistently ranked as one of Fortune’s most admired global companies, the firm competes in what many would describe as a commodity business. Rather than pursue a low-total-cost strategy and compete on price, BASF decided to transform itself into an innovative service-oriented company. Services, like R&D support or on-site field services, are hard for rivals to duplicate and when well executed, provide the ultimate differentiation strategy. To communicate its value proposition to customers, the firm launched its advertising campaign with the familiar tag line:

“We don’t make a lot of products you buy. We make a lot of the products you buy better.”

A senior executive at BASF’s ad agency, Tony Graetzer, describes the rationale for this campaign, which has been recognized with numerous awards: “Companies are frequently viewed as tied on the quality of their products, but they are never viewed as tied on the quality of their services.” Winning companies provide superior service. By emphasizing how it helps make its customers’ products better and delivering on its promises, the BASF brand has become synonymous with customer partnerships and technology leadership.


FIGURE 8.4 | STEPS IN THE PRODUCT-POSITIONING PROCESS

1. Identify the relevant set of competitive products

2. Identify the set of determinant attributes that customers use to differentiate among options and determine the preferred choice

3. Collect information from a sample of existing and potential customers concerning their ratings of each product on the determinant attributes

4. Determine the product’s current position versus competing offerings for each market segment

5. Examine the fit between preferences of market segments and current position of product

6. Select Positioning or Repositioning Strategy


and that are important to them in determining which brand they prefer. In short, then, determinant attributes are choice criteria that are both important and differentiating. Of course, some attributes are important to organizational buyers, but they may not be differentiating. For example, safety might be an important attribute in the heavy-duty truck market, but business market customers may consider the competing products offered by Navistar, Volvo, and Mack Trucks as quite comparable on this dimension. Durability, reliability, and fuel economy might constitute the determinant attributes.

Step 3 involves collecting information from a sample of existing and potential customers concerning how they perceive the various options on each of the determinant attributes. The sample should include buyers (particularly buying influential) from organizations that represent the full array of market segments the product strategist wishes to serve. After examining the product’s current position versus competing offerings (Step 4), the analyst can identify (1) the competitive strength of the product in different segments and (2) the opportunities for securing a differentiated position in a particular target segment (Step 5).

Isolating Strategy Opportunities

Step 6 involves the selection of the positioning or repositioning strategy. Here the product manager can evaluate particular strategy options. First, for some attributes, the product manager may wish to (1) pursue a strategy to increase the importance of an attribute to customers and (2) increase the difference between the competition’s products and the firm’s products. For example, the importance of an attribute such as customer training
might be elevated through marketing communications emphasizing how the potential buyer can increase its efficiency and employee performance through the firm’s training. If successful, such efforts might move customer training from an important attribute to a determinant attribute in the eyes of customers. Second, if the firm’s performance on a determinant product attribute is truly higher than that of competitors—but the market perceives that other alternatives enjoy an edge—marketing communications can be developed to bring perceptions in line with reality. Third, the competitive standing of a product can be advanced by improving the firm’s level of performance on determinant attributes that organizational buyers emphasize.

Product Positioning Illustrated

This product positioning approach was successfully applied to a capital equipment product at a major corporation. The product that provided the focus of the analysis is sold in three sizes to two market segments: end users and consulting engineers. Marketing research identified 15 attributes, including reliability, service support, company reputation, and ease of maintenance.

A New Strategy  The research found that the firm’s brand enjoyed an outstanding rating on product reliability and service support. Both attributes were generally determinant for the company against most competitors. To reinforce the importance of both attributes, management decided to offer an enhanced warranty program. Both end users and consulting engineers view warranties as important but not a point of differentiation across competing brands. Management surmised, however, that by establishing a new warranty standard for the industry, the attribute could become determinant, adding to the brand’s leverage over competitors. In addition, management felt that the new warranty program might also benefit the brand’s reputation on other attributes such as reliability and company reputation.

Better Targeting  The study also provided some surprises. Price was not nearly as important to organizational buyers as management had initially believed. This suggested that there were opportunities to increase revenue through product differentiation and service support. Likewise, the research found that the firm’s brand dominated all competitors in the large- and medium-sized products, but not in the small-sized products. This particular product had an especially weak competitive position in the consulting engineer segment. Special service support strategies were developed to strengthen the product’s standing in this segment. Clearly, product positioning provides a valuable tool for designing creative strategies for business markets.

The Technology Adoption Life Cycle

After decades of being content with letters, telegrams, and telephones, consumers have embraced voice-mail, e-mail, Internet browsers, and a range of information appliances. In each case, the conversion of the market came slowly. Once a particular threshold of consumer acceptance was achieved, there was a stampede. Geoffrey

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38 This section is based largely on Behram J. Hansotia, Muzaffar A. Shaikh, and Jagdish N. Sheth, “The Strategic Determinancy Approach to Brand Management,” Business Marketing 70 (Fall 1985): pp. 66–69.
Moore defines discontinuous innovations as “new products or services that require the end-user and the marketplace to dramatically change their past behavior, with the promise of gaining equally dramatic new benefits.” During the past quarter century, discontinuous innovations have been common in the computer-electronics industry, creating massive new spending, fierce competition, and a whole host of firms that are redrawing the boundaries of the high-technology marketplace.

A popular tool with strategists at high-technology firms is the technology adoption life cycle—a framework developed by Geoffrey Moore, a leading consultant to Hewlett-Packard and a host of other Silicon Valley firms.

**Types of Technology Customers**

Fundamental to Moore’s framework are five classes of customers who constitute the potential market for a discontinuous innovation (Table 8.1). Business marketers can benefit by putting innovative products in the hands of technology enthusiasts. They serve as a gatekeeper to the rest of the technology life cycle, and their endorsement is needed for an innovation to get a fair hearing in the organization. Whereas technology enthusiasts possess influence, they do not have ready access to the resources needed to move an organization toward a large-scale commitment to the new technology.

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**TABLE 8.1 | The Technology Adoption Life Cycle: Classes of Customers**

<table>
<thead>
<tr>
<th>Customer</th>
<th>Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology enthusiasts <em>(innovators)</em></td>
<td>Interested in exploring the latest innovation, these consumers possess significant influence over how products are perceived by others in the organization but lack control over resource commitments.</td>
</tr>
<tr>
<td>Visionaries <em>(early adopters)</em></td>
<td>Desiring to exploit the innovation for a competitive advantage, these consumers are the true revolutionaries in business and government who have access to organizational resources but frequently demand special modifications to the product that are difficult for the innovator to provide.</td>
</tr>
<tr>
<td>Pragmatists <em>(early majority)</em></td>
<td>Making the bulk of technology purchases in organizations, these individuals believe in technology evolution, not revolution, and seek products from a market leader with a proven track record of providing useful productivity improvements.</td>
</tr>
<tr>
<td>Conservatives <em>(late majority)</em></td>
<td>Pessimistic about their ability to derive any value from technology investments, these individuals represent a sizable group of customers who are price sensitive and reluctantly purchase high-tech products to avoid being left behind.</td>
</tr>
<tr>
<td>Skeptics <em>(laggards)</em></td>
<td>Rather than potential customers, these individuals are ever-present critics of the hype surrounding high-technology products.</td>
</tr>
</tbody>
</table>

By contrast, visionaries have resource control and can often be influential in publicizing an innovation’s benefits and giving it a boost during the early stages of market development. However, visionaries are difficult for a marketer to serve because each demands special and unique product modifications. Their demands can quickly tax a technology firm’s R&D resources and stall the market penetration of the innovation.

The Chasm  Truly innovative products often enjoy a warm welcome from early technology enthusiasts and visionaries, but then sales falter and often even plummet. Frequently, a chasm develops between visionaries who are intuitive and support revolution and the pragmatists who are analytical, support evolution, and provide the pathway to the mainstream market. The business marketer that can successfully guide a product across the chasm creates an opportunity to gain acceptance with the mainstream market of pragmatists and conservatives. As Table 8.1 relates, pragmatists make most technology purchases in organizations, and conservatives include a sizable group of customers who are hesitant to buy high-tech products but do so to avoid being left behind.

Strategies for the Technology Adoption Life Cycle

The fundamental strategy for crossing the chasm and moving from the early market to the mainstream market is to provide pragmatists with a 100 percent solution to their problems (Figure 8.5). Many high-technology firms err by attempting to provide something for everyone while never meeting the complete requirements of any

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**Inside Business Marketing**

The Gorilla Advantage in High-Tech Markets

High-tech companies that can get their products designed into the very standards of the market have enormous influence over the future direction of that market. For example, all PC-based software has to be Microsoft- and Intel-compatible. All networking solutions must be compatible with Cisco Systems’ standards; all printers must be Hewlett-Packard–compatible. This is the essence of gorilla power in high-tech markets that firms such as Microsoft, Intel, Cisco, and Hewlett-Packard enjoy. The gorilla advantage allows these market leaders to

- *Attract more customers* by enjoying better press coverage and shorter sales cycles just because information technology managers expect it to be the winner;
- *Keep more customers* because the cost of switching is high for customers and the cost of entry is high for competitors;
- *Drive costs down* by shifting some costly enhancements that customers demand to suppliers while retaining control of the critical components of value creation;
- *Keep profits up* because business partners place a priority on developing complementary products and services that make the whole product of the market leader worth more to customers than competing products are worth.

The Internet presents an explosive area of growth in many sectors of the high-tech market as firms square off to gain a leadership position in e-procurement, wireless technologies, supply chain integration, and Web-focused security. The gorilla games are just beginning!

particular market segment. Pragmatists seek the whole product—the minimum set of products and services that provide them with a compelling reason to buy. Geoffrey Moore notes that “the key to a winning strategy is to identify a simple beachhead of pragmatist customers in a mainstream market segment and to accelerate the formation of 100 percent of their whole product. The goal is to win a niche foothold in the mainstream as quickly as possible—that is what is meant by crossing the chasm.”

The Bowling Alley

In technology markets, each market segment is like a bowling pin, and the momentum from hitting one segment successfully carries over into surrounding segments. The bowling alley represents a stage in the adoption life cycle where a product gains acceptance from mainstream market segments but has yet to be adopted widely.

Consider the evolution of strategy for Lotus Notes. When first introduced, Notes was offered as a new paradigm for corporate-wide communication. To cross into the mainstream market, the Lotus team shifted the product’s focus from an enterprise-wide vision of corporate communication to specific solutions for particular business functions. The first niche served was the global account-management function of worldwide accounting and consulting firms. The solution was enhanced account activity coordination for highly visible products. This led to a second niche—global account management for sales teams, where enhanced coordination and information sharing spur productivity.

40Ibid., p. 22. For a related discussion, see Clayton M. Christensen and Michael E. Raynor, The Innovator’s Solution: Creating and Sustaining Successful Growth (Boston: Harvard Business School Press, 2003), pp. 73–95.

41Moore, Inside the Tornado, pp. 35–37.
A Focused Strategy  A logical next step for Lotus was movement into the customer service function, where openly sharing information can support creative solutions to customer problems. Successful penetration of these segments created another opportunity—incorporating the customer into the Notes loop. Note the key lesson here: A customer-based, application-focused strategy provides leverage so that a victory in one market segment cascades into victories in adjacent market segments.

The Tornado  Although economic buyers who seek particular solutions are the key to success in the bowling alley, technical or infrastructure buyers in organizations can spawn a tornado (see Figure 8.5). Information technology (IT) managers are responsible for providing efficient and reliable infrastructures—the systems organizational members use to communicate and perform their jobs. They are pragmatists, and they prefer to buy from an established market leader.

IT professionals interact freely across company and industry boundaries and discuss the ramifications of the latest technology. IT managers watch each other closely—they do not want to be too early or too late. Often, they move together and create a tornado. Because a massive number of new customers are entering the market at the same time and because they all want the same product, demand dramatically outstrips supply and a large backlog of customers can appear overnight. At a critical stage, such market forces have surrounded Hewlett-Packard’s laser and inkjet printers, Microsoft’s Windows products, Intel’s Pentium microprocessors, and Research in Motion’s BlackBerry device.

Tornado Strategy  The central success factors for the tornado phase of the adoption life cycle differ from those that are appropriate for the bowling alley. Rather than emphasizing market segmentation, the central goal is to gear up production to capitalize on the opportunity the broad market presents. In its printer business, Hewlett-Packard demonstrated the three critical priorities during a tornado:

1. “Just ship.”
2. Extend distribution channels.
3. Drive to the next lower price point.

First, Hewlett-Packard’s quality improvement process allowed it to significantly increase production—first with laser printers, and later with inkjet printers—with few interruptions. Second, to extend market coverage, H-P began to sell its laser printers through PC dealer channels and extended its distribution channels for inkjet printers to computer superstores, office superstores, mail order, and, more recently, to price clubs and other consumer outlets. Third, H-P drove down the price points for its printers—moving inkjet printers below $1,000, then below $500, and then well below that. As this example demonstrates, tornado strategy emphasizes product leadership and operational excellence in manufacturing and distribution.

Main Street

This stage of the technology adoption life cycle represents a period of aftermarket development. The frantic waves of mass-market adoption of the product begin to subside. Competitors in the industry have increased production, and supply now exceeds demand. Moore points out that “the defining characteristic of Main Street is that continued profitable market growth can no longer come from selling the basic commodity to new customers and must come instead from developing niche-specific extensions to the basic platform for existing customers.”

Main Street Strategy The goal here is to develop value-based strategies targeted to particular end-user segments. H-P, for example, matches its printers to the special needs of different segments of home-office users by offering

- A compact portable printer for those users who are space-constrained;
- The OfficeJet printer-fax for those who do not yet own a fax;
- A high-performance color printer for those who create commercial flyers.

Main Street strategy emphasizes operational excellence in production and distribution as well as finely tuned market segmentation strategies. What signals the end of the technology adoption life cycle? A discontinuous innovation appears that incorporates breakthrough technology and promises new solutions for customers.

Summary

Some of the most valuable and enduring global brands belong to business-to-business firms. The power of a brand resides in the minds of customers through what they have experienced, seen, and heard about the brand over time. The customer-based brand equity model consists of four steps: establishing the right brand identity, defining the meaning of the brand through unique brand associations, developing responsive marketing programs to elicit a positive brand response from customers, and building brand relationships with customers, marked by loyalty and active engagement. Research vividly demonstrates that investments in building a strong brand yield a positive payoff in the financial performance of the firm.

Conceptualizing a product must go beyond mere physical description to include all the benefits and services that provide value to customers. The unifying goal for the business marketer: Provide superior market-perceived quality and value versus competitors. To a business customer, value involves a trade-off between benefits and sacrifices. Business marketers can strengthen customer relationships by providing value-added services and helping customers reduce operations costs. A carefully coordinated product strategy recognizes the role of various functional areas in providing value to business customers. Special attention should be given to synchronizing the activities among the product-management, sales, and service units.

Industrial product lines can be broadly classified into (1) proprietary or catalog items, (2) custom-built items, (3) custom-designed items, and (4) industrial services.

Moore, Inside the Tornado, p. 111.
Product management can best be described as the management of capability. In monitoring product performance and in formulating marketing strategy, the business marketer can profitably use product-positioning analysis. By isolating a product’s competitive standing in a market, positioning analysis provides strategy insights to the planner. A product attribute is determinant if it is both important and differentiating.

Rapidly changing high-technology markets present special opportunities and challenges for the product strategist. The technology adoption life cycle includes five categories of customers: technology enthusiasts, visionaries, pragmatists, conservatives, and skeptics. New products gain acceptance from niches within the mainstream market, progress from segment to segment like one bowling pin knocking over another, and, if successful, experience the tornado of general, widespread adoption by pragmatists. Importantly, the technology adoption life cycle calls for different marketing strategies at different stages.

**Discussion Questions**

1. Evaluate this statement: A brand is much more than a name, and branding is a strategy problem, not a naming problem.

2. Identify two business-to-business brands that you would deem to be strong and distinctive. Next, describe the characteristics of each brand that tend to set it apart from rival brands.

3. Using the customer-based brand equity framework as a guide, describe the distinctive components of Apple’s brand strategy.

4. Describe why a brand-positioning strategy should include points of difference and points of parity. Provide an illustration to support your case.

5. Regis McKenna notes that “no company in a technology-based industry is safe from unanticipated bumps in the night.” In recent years, many industries have been jolted by technological change. In such an environment, what steps can a product strategist take?

6. Bradley Gale, managing director of The Strategic Planning Institute, says: “People systematically knock out income statements and balance sheets, but they often don’t monitor the nonfinancial factors that ultimately drive their financial performance. These nonfinancial factors include ‘relative customer-perceived quality’: how customers view the marketer’s offering versus how they perceive competitive offerings.” Explain.

7. Distinguish among catalog items, custom-built items, custom-designed items, and services. Explain how marketing requirements vary across these classifications.

8. A particular product strategy will stimulate a response from the market and a corresponding response from competitors. Which specific features of the competitive environment should the business marketing strategist evaluate?
9. Moving across the technology adoption life cycle, compare and contrast technology enthusiasts with pragmatists. Give special attention to the strategy guidelines that the marketing strategist should follow in reaching customers that fall into these two adoption categories.

10. Firms like Microsoft, Apple, Sony, and Intel have experienced a burst of demand for some of their products. During the “tornado” for a high-tech product, the guiding principle of operations for a market leader is “Just ship.” Explain and discuss the changes in marketing strategy the firm must follow after the tornado.

**Internet Exercise**

1. United Technologies Corporation (UTC) provides a broad range of high-technology products and support services to the building systems and aerospace industries. Go to http://www.utc.com and identify UTC’s major businesses (product lines).
Research demonstrates that visual clues—such as raising an eyebrow or slumping the shoulders—comprise more than 50 percent of the information conveyed in a conversation. Unfortunately, until now, video technologies failed to provide the necessary fidelity to transmit these revealing clues effectively. However, Cisco Systems has created a two-way video communications system that preserves all those important nuances, in the process pioneering a new form of digital communications that rivals the effectiveness of in-person meetings. Twenty-five patents are pending for the Cisco TelePresence “as if you were there” technology. One industry analyst observed that video conferencing is like riding a 10-speed bike while TelePresence is like driving a Ferrari.

**Benefits**

By reducing the need for in-person face-to-face meetings, organizations can reap significant benefits from reduced travel costs, greater productivity, and better relationships with customers and partners. For global companies, executive travel is disruptive, costly, and time-consuming. Why travel to meet in person if you can communicate just as effectively through TelePresence?

**The Price Tag**

The Cisco TelePresence 3000 costs approximately $300,000 for each installation, or room, plus additional support costs. By contrast, the Cisco TelePresence 1000 is priced at $80,000 per room. As the price of key TelePresence technologies, such as plasma screens and broadband connections, will almost certainly continue to decline rapidly, Cisco believes that the system will enjoy a wider array of applications, making it affordable for more organizations and even for individuals from home.

**Discussion Questions**

1. Using the technology life cycle as a framework, propose particular marketing strategies that Cisco might employ to “cross the chasm.”

2. Identify particular market segments that Cisco might target for the TelePresence product.

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