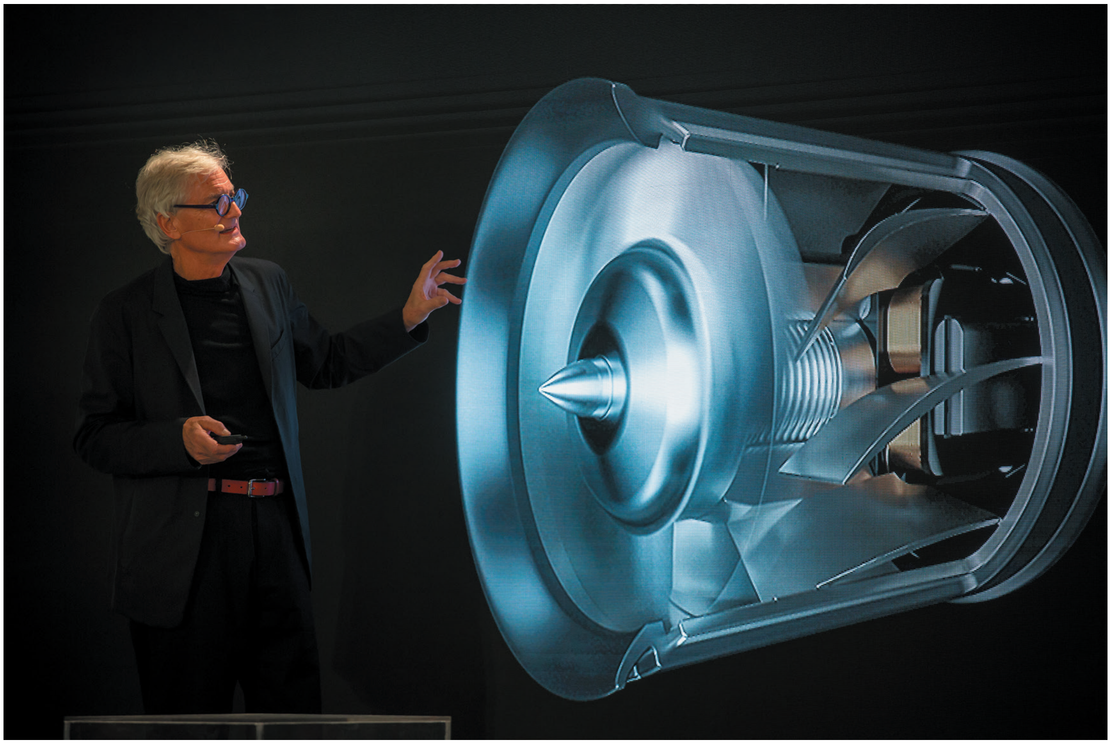
CHAPTER 18

Developing New Market Offerings



James Dyson's eponymous company has achieved great success by combining aesthetic appeal with technological innovation and rigorous research that have reinvented the way vacuum cleaners, fans, and hair dryers function.

Source: Michael Nagle/ Bloomberg via Getty Images

The development of new offerings shapes the company's future. Without investing in developing new offerings, a company is destined to rely on acquiring new products developed by other companies to ensure sustained growth. The development of new offerings is the engine that drives a company's success, enabling it to challenge industry norms and apply imaginative solutions that engage and delight customers. One company that definitely understands how to shape not only its own future, but also that of its customers, is Dyson Corporation.

>>> The Dyson company was established in 1991 after its founder, James Dyson, became frustrated with how soon his vacuum cleaner lost suction. He quickly found the problem, which was that the vacuum cleaner's bag rapidly became blocked with dust, constricting the airflow and reducing the suction. Dyson realized that this was not just a problem with his vacuum cleaner but was also a flaw in the way all vacuum cleaners were designed. Determined to solve the problem and design a machine that "never loses suction" (which later became the advertising tagline for his vacuum cleaners), Dyson designed a vacuum cleaner that, instead of using a bag, relied on centrifugal force

to separate the dirt from the air. His vacuum cleaner was more effective at picking up dirt than traditional vacuum cleaners, and it was also beautifully designed and carried distinct aesthetic appeal. Building on the phenomenal success of its vacuum cleaners, nearly two decades later Dyson revolutionized another product category that had seen little if any change over the years—electric fans. Using air-multiplier technology, Dyson introduced a bladeless fan that had no visible moving parts or spinning blades. And Dyson's most recent invention takes air-multiplier technology to the next level: The sleekly designed Dyson Supersonic hair dryer is more compact and quieter than the average blow dryer and includes intelligent heat control to minimize damage to hair. Such innovation does not come quickly or cheaply. It took more than four years, some 600 prototypes, research on more than 1,000 miles of human hair, and $71 million to develop the dryer.[1]

This chapter provides an overview of the process of developing new market offerings. Because the term *new products* is commonly used in reference to new market offerings, we use these terms are used interchangeably. Thus, the following discussion is relevant not only to new products and services but also to the development of the business models of an enterprise.

The Process of Developing New Market Offerings

Innovation is the key to developing viable new offerings. Innovation is not limited to the development of new products or services. It can involve a new technology, a new approach to brand building, a new pricing mechanism, a new way of managing incentives, new channels of communication, or a novel distribution method. Innovation is particularly important in industries that are characterized by high technological uncertainty, high market uncertainty, fierce competition, high investment costs, and short product life cycles. Innovative offerings disrupt existing business models and make companies that fail to adapt to changing market conditions superfluous by devising new ways to create market value.

THE INNOVATION IMPERATIVE

In an economy characterized by rapid change, continuous innovation is a necessity. Companies that fail to develop new products leave themselves vulnerable to changing customer needs and tastes, shortened product life cycles, increased domestic and foreign competition, and lack of awareness of the potential market opportunities opened up by new technologies.

Learning Objectives After studying this chapter you should be able to:

18.1 Explain how companies develop new offerings.

18.2 Explain how companies generate new ideas.

18.3 Describe how companies create and validate a prototype.

18.4 Summarize the key aspects of designing a business model for a new offering.

18.5 Explain how companies implement new offering strategies.

18.6 Discuss the key steps in commercially deploying a new offering.

Highly innovative firms are able to repeatedly identify and quickly seize new market opportunities. They create a positive attitude toward innovation and risk taking, "routinize" the innovation process, practice teamwork, and allow their people to experiment and even fail. One such firm is W. L. Gore.

W. L. Gore Best known for its GORE-TEX high-performance fabrics, W. L. Gore has introduced breakthrough versions of guitar strings, dental floss, medical devices, and fuel cells—while constantly reinventing the uses of the polymer polytetrafluoroethylene (PTFE). Several principles guide the company's new-product development. First, it works with potential customers. Its thoracic graft, designed to combat heart disease, was developed in close collaboration with physicians. Second, Gore has a distinctly egalitarian culture; it lets employees choose projects and appoints few product leaders and teams. The company likes to nurture "passionate champions" who convince others that a project is worth their time and commitment, and leaders have positions of authority because they have followers. Third, all research associates spend 10 percent of their work hours on "dabble time," developing their own ideas. Promising ideas are judged according to a "Real, Win, Worth" exercise: Is the opportunity real? Can we win? Can we make money? Fourth, Gore knows when to let go, although dead ends in one area can spark innovation in another: Elixir acoustic guitar strings were the result of a failed venture into bike cables. Even successful ventures may need to move on. Glide shred-resistant dental floss was sold to Procter & Gamble because Gore knew retailers want to deal with a company selling a family of health care products. W. L. Gore employs nearly 10,000 people in dozens of countries around the globe and has revenue of more than $3.5 billion.[2]

Source: W. L. Gore & Associates

>> Product development at W. L. Gore entails working closely with customers, letting employees choose their projects, giving leadership positions to passionately committed employees, allowing researchers space to develop their own ideas, and knowing when to call a halt to a venture.

Innovation ranges from minor improvements or revisions of existing products to new-to-the-world items that create an entirely new market. Fewer than 10 percent of all new products can be considered truly innovative and new to the world. Most new-product activity is concentrated on improving existing products. This form of continuous innovation can broaden a brand's meaning and force competitors to play catch-up. Many of the supermarket product launches in the past decade have been brand extensions, such as Tide Pods, Gillette Fusion ProShield, Downy Unstopables, Colgate Total Clean-In-Between, and Oreo Thins. At Sony, modifications of established products have accounted for over 80 percent of new-product activity. In fact, most established companies focus on **incremental innovation**, entering new markets by tweaking products for new customers, using variations on a core product to stay one step ahead of the market, and creating interim solutions for industry-wide problems.

The focus on minor variations of existing products is due in part to the fact that it is increasingly difficult to identify blockbuster products that will transform a market. Nonetheless, many companies continue to pursue new-to-the-world innovations. These innovations are typically associated with great risk and cost, but if they succeed, they can improve the corporate image, create a greater sustainable competitive advantage for the company, and produce significant financial rewards.[3]

Keurig pioneered the one-cup-at-a-time pod-style brewing system that has swept homes and offices alike. For the speed, convenience, and variety offered, users are willing to pay 10 times the cost of a traditionally brewed cup of coffee. This has helped Keurig sales to exceed $11 billion and its revenue-based market share of the single-cup coffee market to reach 30 percent.[4]

Successful new-product launches are exceptions rather than the rule. New products fail at rates estimated to be as high as 95 percent. The most common reasons include ignored or misinterpreted market research, overestimates of market size, high development costs, poor product performance, inadequate pricing, ineffective communication, insufficient distribution support, proactive competitive response, lack of organizational support for the new offering, and inadequate return on the company's investment. The different reasons for failure can be summed up in one sentence: The new offering fails to create superior value for its target customers in a way that sufficiently benefits the company and its collaborators.

MANAGING INNOVATION

Innovation does not happen in a vacuum. Innovative products are created by individuals, many of whom work for both small and large enterprises. Therefore, creating an environment that fosters innovation and encourages the development of new products is paramount.[5] Companies handle the organizational aspect of innovation in different ways. Some of the popular approaches to managing innovation are outlined as follows:

- **Departments in charge of current offerings.** A common approach to foster and manage innovation is to assign responsibility for developing new products and services to managers in charge of a given product category, brand, or market. The advantage of this approach is that these managers have a solid understanding of customer needs, the competitive environment, and the processes involved in designing, communicating, and delivering the company's products to its current customers. On the downside, managers in charge of offerings that already exist are often focused on these offerings and may lack the skills, knowledge, and motivation to develop successful new products.
- **New-product departments.** Large companies often establish a new-product department headed by a manager with substantial authority and access to top management, along with responsibility for generating and screening new ideas, working with the research and development department, and carrying out field testing and commercialization. Eli Lilly put *every* department engaged in the process of turning molecules into medicine—from the research and development staff to the team that seeks FDA approval—under one roof to improve efficiency and cut development time.
- **Innovation centers.** Some firms open innovation centers in new geographic locations to better design new products for those regions. For example, Microsoft has over 100 innovation centers worldwide forging partnerships with local government, universities, and industry collaborators. In the same vein, the networking giant Cisco has built a network of innovation centers located around the world, each serving as a hub to build solutions with partners and start-ups, to engage in rapid prototyping, as well as to invest in and partner with start-ups, accelerators, and universities.
- **Venture teams.** Another approach to driving innovation involves assigning new-product development to venture teams—cross-functional groups charged with developing a specific product or business. These **intrapreneurs** are relieved of other duties and given a separate budget and a longer time frame than is typical. They are also often organized in a "skunkworks" setting—informal workplaces, sometimes garages, where entrepreneurial-minded teams work to develop new products. For example, as it transformed itself from a PC company into a solutions company in the cyber-security and data center design and management business, Dell established separate headquarters for its new units, with marching orders to think entrepreneurially.[6]
- **Communities of practice.** Another organizational arrangement for new-product development involves creating forums in which employees from different departments are encouraged to share their knowledge and skills. For example, Japanese pharmaceutical maker Esai Co. has formed more than 400 innovation communities. One of these innovation centers helped develop an easy-to-swallow, jelly-like medication for Alzheimer's patients. Grocery retailer Supervalu commissioned 29 innovation community-of-practice projects, 22 of which ended up being implemented by the company.[7]
- **Cross-functional teams.** Creating project-specific teams combining different skillsets is another popular approach to fostering innovation. A particular benefit of this approach is that it brings

different types of expertise to the new-product development process, which, in turn, expedites innovation and increases the chances of creating groundbreaking new offerings. Cross-functional teams composed of both engineers and marketers help ensure that a company's research and development efforts are not driven to create a "better mousetrap" when potential customers do not need or want one.

THE STAGE-GATE APPROACH TO DEVELOPING NEW OFFERINGS

New-product development is commonly represented as a sequence of actions (stages) separated by hurdles (gates) that the new offering must overcome.[8] The stage-gate approach divides the innovation process into stages, with a gate or checkpoint at the end of each stage. The ultimate goal of using a stage-gate approach to new-product development is to ensure market success in a way that minimizes risk and optimizes allocation of the company's resources.

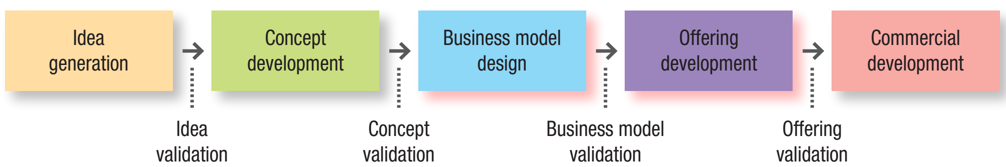
Stage-gate systems have evolved over the years as users have made them more flexible, adaptive, and scalable, with improved built-in governance, integrated portfolio management, incorporated accountability and continuous improvement, and ongoing input from a wide range of sources both inside and outside the company. By using a stepwise approach of formulating, testing, realigning, and pivoting, a company aims to separate the wheat from the chaff, weeding out bad ideas and investing in the ones that are most likely to produce the desired outcome. For example, at Tata Steel, about 50 to 100 ideas are generated for every one that makes it to implementation, and at any point in time, 50 to 70 product-development projects are in the pipeline before some clear the final-phase gate.[9]

There is no single stage-gate format; companies vary in the ways they define different stages of product development and the hurdles that the new offering must overcome. At the same time, there are several similarities between these approaches that can be distilled into an overarching **stage-gate framework** for managing the process of developing new offerings. This framework presents a streamlined version of the stage-gate approach, which comprises five key stages—*idea generation, concept development, business-model design, offering development,* and *commercial deployment* —separated by hurdles that aim to validate the actions taken in the previous step. This stage-gate framework for developing new offerings is depicted in Figure 18.1.

The five stages of the stage-gate approach to developing new offerings can be summarized as follows:

- **Idea generation.** The starting point for developing a new offering is uncovering an unmet customer need and coming up with an idea about how to fulfill this need better than the available alternatives. The initial idea outlines in broad strokes the ways in which the company can address the focal customer need, without going into much detail about the specifics of the market offering. Idea generation is followed by an assessment of the soundness of the idea and validation of its key assumptions.
- **Concept development.** Following validation of the idea, the next step is the development of an initial version (prototype) of the offering that has the core functionality of the proposed offering. The developed concepts are then validated by assessing their technological feasibility and potential to fulfill the uncovered customer need.
- **Business-model design.** The validated concept then becomes the core of a business model that defines the offering's target market, the value created by the offering in this market, and the key attributes of the offering. The business model is validated on the basis of the degree to which it is able to fulfill the identified customer need in a way that sufficiently benefits the company and its collaborators.
- **Offering implementation.** The validated business model is still only a plan; the company has not developed a market-ready version of the offering. To fulfill the needs of its target customers

FIGURE **18.1**
The Stage-Gate Framework for Developing New Offerings



and create value for its stakeholders and collaborators, the company must develop the resources needed to create the offering and then develop a market-ready version of it.

- **Commercial deployment.** The market-ready version of the offering is then commercially deployed, meaning that it is communicated and made available to target customers. Commercial deployment often begins with launching the offering in selected markets before making the offering available to the entire target market. The commercial deployment is concomitant with continuous market testing and optimizing of the product to better meet the needs of the target customers, respond to changes in the market environment, and take advantage of any changes in the underlying technology, know-how, and business processes.

The stage-gate approach encompasses three aims. Its goal is to develop: (1) a *desirable* offering that target customers will find attractive, (2) a technologically *feasible* offering that the company will find doable, and (3) a *viable* offering that will create value for the company and its collaborators. Desirability, feasibility, and viability are integral to the process of developing an offering, although these factors play different roles. The offering's desirability is typically paramount in the idea-generation phase of product development. Both desirability and feasibility share the focus during concept development. And business-model design aims to ensure that all three of these criteria are met before implementing the final version of the offering and bringing it to market.

The high uncertainty and risk associated with new-product development implies that for every successful innovation there are many innovative ventures that did not pan out. The high rate of failure of new-product development projects suggests that in order to end up with a viable market offering, a company must start with a number of new ideas that, through a series of screening, pivoting, and realignments will produce a successful outcome. In this context, having hurdles (gates) is important for managing resource allocation, investing in projects that have a high probability of succeeding, and screening out projects that cannot be validated at the different stages of the new-product development process.

Thus, at the beginning of the process, the company might consider a large number of ideas at a relatively low cost. Many of these ideas are screened out; only a few proceed to the concept-development stage, which requires a relatively larger investment in prototyping and testing. As the projects go through the different stages of the development process, the number of viable alternatives is reduced to a few options (or often a single option) to be commercialized. At the same time, the investment per project increases, with the last two stages—commercialization and commercial deployment—typically requiring the most of the company's resources.

The stage-gate approach outlined previously represents a streamlined version of the process of developing a new offering. On many occasions, the development of a new offering might not follow a predefined series of orderly, well-delineated steps but might instead entail actions that do not follow the linear format of the stage-gate framework. I is not uncommon for a new-offering development project to pass the idea-generation stage only to fail to overcome some of the subsequent hurdles. In such cases, the company must go back to the drawing board and perhaps even reevaluate the idea and/or the concept underlying the entire project. Note, however, that even though the new-product development process might involve multiple iterations rather than a linear process in which each stage naturally transitions into the next, the stage-gate framework outlined previously offers a set of actionable guidelines that can streamline the process of developing new offerings.

THE STAGE-GATE APPROACH TO DEVELOPING NEW OFFERINGS: AN ILLUSTRATION

The stage-gate approach to business-model development can be illustrated with the following example. Consider a food-processing company seeking to introduce a new product that will increase its market presence and fuel its revenue growth. The five stages of developing a new offering can be delineated as shown here.

Idea Generation and Validation. After exploring a number of alternative ideas, the company decides to focus on creating a powder to add to milk to increase its nutritional value and taste. Next, the company must answer several questions: Who will use this product—infants, children, teenagers, young or middle-aged adults, or older adults? What primary benefit should this product provide—taste, nutrition, refreshment, or energy? On what occasion will people consume this drink—at breakfast, mid-morning, for lunch, mid-afternoon, with dinner, late evening?

After answering these questions, the company formulates several ideas: (1) an instant drink for adults who want a quick nutritious breakfast without preparation, (2) a tasty snack for children to drink as a midday refreshment, and (3) a health supplement for older adults to drink in the late evening before bed. Note that these ideas affect not only the way the product would be formulated but also the market in which it would compete. An instant-breakfast drink would compete against bacon and eggs, breakfast cereals, coffee and pastry, and other breakfast alternatives. A snack drink would compete against soft drinks, fruit juices, sports drinks, and other thirst quenchers.

After evaluating the pros and cons of different options, the company decides to go ahead with the first idea and develop an instant-breakfast drink. Next, the product idea must be fleshed out and turned into a specific product concept.

Concept Development and Validation. To turn the idea into a product concept, the company has to articulate the specific attributes of its market offering: What will be the particular *product* formulation? What ingredients will it involve and how will they be mixed? What *brand* name and associations will identify this product? What are the *price* points at which this offering will be sold? What *incentives* will be associated with this product? How will the company *communicate* this offering to its target customers? How will this product be *delivered* to its target customers?

To address these questions, the company may conduct market research to examine how its product will stand in relationship to other breakfast options. Within this category, its nearest competitors are cold cereal and breakfast bars; its most distant competitors are bacon and eggs. The company might also examine the extant market offerings—its own breakfast products as well as products offered by its competitors. Finally, the company might consider the likely size of the market for its product: Are there many customers whose needs the company's offering can address better than the competition?

Based on its evaluation of the customer market, the competitive offerings, and its own goals and resources, the company might decide to develop a mid-price product emphasizing nutrition and convenience. At this stage, the product concept is defined as "a powdered mixture added to milk to make a tasty instant breakfast that provides all daily nutrition needs in three flavors (chocolate, vanilla, and strawberry) and individual packets, six to a box, at $2.99 a box." The product concept can be thought of as the value proposition the company will offer to its target customers.

Business-Model Design and Validation. Following the development and validation of the product concept, the company must make the case for why customers will buy the company's offering and how the company and its collaborators will benefit from launching the offering. To this end, the company must articulate (1) the specifics of the target market (size of the market, core competitors, and key collaborators), (2) the value the offering creates for target customers, the company, and its collaborators, and (3) the key attributes of the offering (product, brand, price, incentives, communication, and distribution).

The *target market* for the product consists of adults who are short on time and seek a convenient, nutritious, and moderately priced breakfast meal. The customer demand estimates show that this is a sufficiently large market to enable the company to reach its revenue and profit goals. The competitive analysis further shows that even though there are several large competitors in this space, most of them compete at either the high end or the low end of the market, so there is an opportunity for a mid-range-priced breakfast offering.

The *value* that the company's offering creates in this market can be defined along three key dimensions—customer value, collaborator value, and company value.

- For *target customers*—strapped-for-time middle-class families with children—the offering will create value by providing a convenient, nutritious, and moderately priced breakfast meal.
- For *collaborators*—suppliers and distributors—the offering will create value by generating additional sales at competitive rates.
- For the *company stakeholders*, the offering will create value by providing a new stream of revenue and profit. It will also allow the company to gain market position and build a strong brand that can be used as a platform for additional offerings. Specifically, the company plans initially to sell 500,000 cases for a 2.5 percent share of the market, with a loss in the first year not exceeding $1.3 million. Over the course of five years, the company intends to gain a 12 percent market share and realize an after-tax return on investment of 12 percent.

Following definition of the target market and the offering's value proposition, the company must build on the initial concept of the *market offering* and define the attributes of the new offering in greater detail. In this context, the key attributes of the company offering might be defined as follows:

> The product will be offered in chocolate, vanilla, and strawberry flavors, in individual packets of six to a box, at a retail price of $2.99 a box. There will be 48 boxes per case, and the case price to distributors will be $78. To ensure trade support, retailers will be offered one case free for every four cases bought during the first two months, plus allowances for cooperative advertising. Free samples will be distributed in stores. Coupons for 50 cents off will appear in newspapers and online. The total sales promotional budget will be $15 million. One-third of an advertising budget of $6 million will go into television and two-thirds into online, equally split between outbound and inbound communication. Advertising copy will emphasize the benefit concepts of nutrition and convenience. During the first year, $100,000 will be spent on marketing research to buy store audits and consumer-panel information to monitor market reaction.

Offering Implementation and Market Testing. Following the design of a viable business model, the company embarks on developing the offering—that is, creating the actual product that will be made available in the market. To this end, the company must first ensure that it has the *resources* needed to make the product concept a reality. For example, the company might have to procure the manufacturing facilities and ensure the availability of the ingredients needed to produce the breakfast meal created by the food engineers in the company's research and development department.

Once the necessary resources have been secured, the company can proceed with *implementing the offering*—turning its new-product concept of a breakfast meal into a market-ready product. To this end, the company must produce the actual breakfast meal, design its packaging, create its brand identity, set retail and wholesale prices, define sales promotions for retailers and consumers, secure the communication channels that will inform target customers about the company's product, and assemble the distribution channels that will deliver this product to target customers.

Following the development of the offering, the company conducts a **market test** to validate its offering. Specifically, the company chooses Columbus, Ohio—a popular location for testing new fast-food products because it is reasonably representative demographically of the rest of the nation and is a contained market with reasonable media rates. Based on the results of the market test, the company modifies its offering by tweaking the product formula, streamlining product packaging, and updating its brand identity.

Commercial Deployment. Following the development of the offering, the company is ready for commercial deployment. To minimize risk and the initial outlay of resources involved in launching the product, and to ensure its ability to further modify the product based on market response, the company chooses to deploy its product in *selected markets*. To ensure early success of the offering and generate a stream of revenue, the company chooses to focus on a subset of its target customers who are most likely to adopt its offering and whom the company can reach to communicate and deliver its product in an effective and cost-efficient manner. In addition, rather than launching all three flavors of its breakfast meal, the company decides to launch its most popular flavor—chocolate—first and introduce the other flavors at a later point.

Once the product has been successfully launched in the primary market, has been well received by consumers, and has created a stream of revenue to partially offset the costs of developing the new offering, the company *expands* the initial market to include all customers who might benefit from the new breakfast meal. The company then scales up production, begins promoting its product beyond the primary market, and ensures that the offering is available across the entire target market. As its target market broadens, the company also broadens the available product assortment and launches the other breakfast meal flavors. In addition, it considers launching volume packs to deliver greater value to customers who have adopted its offering and consume it on a regular basis.

The key aspects of the five components of the stage-gate model—*idea generation, concept development, business-model design, offering implementation,* and *commercial deployment*—are discussed in more detail in the following sections.

Idea Generation

The search for viable ideas is the starting point of new-product development. Some of the greatest opportunities and highest leverage for new products can be found by uncovering unmet customer needs that the company can fulfill better than the completion.

GENERATING VIABLE IDEAS

Successful innovations result from identifying a novel approach to address an unmet market need. Innovation marries a customer need with a creative idea that addresses this need. Depending on the impetus of the innovation, there are two approaches to idea generation: market-driven, or top-down, and invention-driven, or bottom-up.

Top-down idea generation begins with identifying a market opportunity followed by developing an offering specifically designed to address this opportunity. The market opportunity must address an important problem faced by potential customers that it can solve better than the available alternatives can. Thus, top-down idea generation starts with a market analysis that aims to identify an important unmet need that the company can fulfill in a way that is superior to its competitors.

A number of successful products have resulted from top-down idea generation. Motiv realized that many consumers found fitness tracker bracelets and other wearable devices too bulky and uncomfortable, to say nothing of lacking in style. So it bundled a step counter, heart-rate monitor, and sleep tracker in a discreet and stylish ring that not only looks good but is water resistant and withstands the elements. Varidesk products allow users to both sit and stand while doing computer and other office tasks. The products were a direct result of widely publicized concerns about the effects of constant sitting on long-term health. Learning thermostats from Nest filled the need for temperature control that didn't require constant programming, yet saved energy and money and kept the home atmosphere comfortable. The Nest smart home-security devices that followed targeted consumers who didn't want the hassle and ongoing expense of having an outside home-monitoring system installed, yet wanted to implement security measures.

Bottom-up idea generation is the opposite of top-down generation: It starts with an invention and then seeks to identify an unmet market need. With bottom-up idea generation, the invention is driven by technological innovation rather than by an identified market need. Because it is rooted in technology, the bottom-up approach is more likely to be employed by research scientists than by marketing managers. And the market applications of technology innovation often come about accidentally.

Among the technologically innovative products that have resulted from bottom-up idea generation are *Evista*, which failed as a contraceptive but was turned into a multibillion-dollar drug to treat osteoporosis. *Strattera* started out as an unsuccessful antidepressant before it became a top-selling attention deficit/hyperactivity disorder (ADHD) drug. The iconic toy *Slinky* was the accidental outcome of a naval engineer's attempt to design a meter to monitor power on battleships, after tension springs fell to the floor and kept bouncing. An electrical engineer's research on the use of radio frequency to offset hypothermia occasioned the discovery that a cooled heart could be restarted by stimulation—and led eventually to invention of the pacemaker.

To develop a product that will ultimately become a market success, bottom-up idea generation must address a viable market opportunity. Innovative technology is not in itself a good reason for developing a new offering. New technologies can, of course, contribute to market success, but the key driver of success is the company's ability to parlay this technology into a product that effectively addresses an unmet market need. For example, the iPod was not the first Mp3 player that featured a hard drive that could store a great number of songs. Such devices were available on the market prior to the iPod, many at a lower price. Yet only when Apple launched the iPod did the entire category of hard-drive-based portable music players explode.

To turn a technological invention into a viable business idea, the company must identify an unmet customer need that this invention can address better than the competition. Thus, even though successful products can spring from technological invention, *top-down innovation is the preferable method of idea generation*. The ultimate success of an offering hinges on its ability to deliver value; therefore, a company can enhance its chances of generating a product destined for success by identifying value-creation opportunities in the marketplace at the outset.

IDEA VALIDATION

Idea validation examines the key assumptions of an idea to determine its soundness. This process involves assessing the offering's *desirability* and *viability* based on whether the offering is likely to successfully address an important unmet customer need (idea desirability) in a way that will simultaneously benefit the company (idea viability).

Companies are prone to two types of errors when they evaluate proposed ideas for new offerings. The first error involves the failure to reject an idea that has little or no merit, which will probably result in an unsuccessful market offering. The second error is based on an opposite miscalculation—the rejection of a good idea. The high rate of new-product failures might lead to the conclusion that failure to reject bad ideas is more prevalent than rejecting promising ideas. This is not necessarily the case. Many new-product failures can undoubtedly be attributed to poor ideas, but the steep rate of such failures can also be caused by a high incidence of rejecting good ideas (Figure 18.2), along with the many technological and market risks inherent in new-product development. A good idea that is poorly executed also runs the risk of failure.

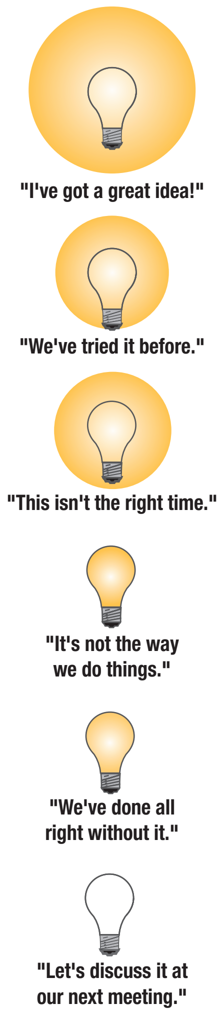


FIGURE **18.2**

Why Good Ideas Fail: Forces Fighting New Ideas

Source: With permission of Jerold Panas, Young & Partners Inc.

The growth projections of many companies have been held hostage to the erroneous belief that it would be an easy task to educate customers to appreciate the benefits of offerings that did not address a problem (pain point) they faced. TiVo is a prime example. The company introduced the first digital video recorder at the turn of this century, fully anticipating that it would revolutionize the television industry and that customers would be quick to adopt it. The TV revolution did materialize, but at a distinctly slower rate than the company predicted. After the competition moved in, TiVo was left with a sliver of the digital video recording market. TiVo's miscalculation: failing to understand that consumers were fairly satisfied with the way they watched TV and did not see the value of TiVo's offering or feel a strong urge to acquire it. For consumers, it was a nice-to-have product, but they did not feel the need to have it.

MARKET RESEARCH TOOLS FOR IDEA GENERATION AND VALIDATION

Exploratory research is a mainstay of idea generation and validation.[10] This form of research helps to identify unmet customer needs, formulate research questions (hypotheses), and generate ideas. Typically used in the initial stages of new-product development, exploratory research strives to attain a general understanding of available market opportunities, rather than quantifying the obtained insights or establishing causal relationships. Common market research tools for idea generation and validation involve *observing and interviewing customers, interviewing employees and experts, analyzing the competition, and crowdsourcing*.

- **Observing customers.** Examining people's behavior in their natural environment can be an effective way to gain insights into customer needs and determine how best to address these needs. This can include observing both physical and online behavior—such as the way customers evaluate, buy, and consume the products and services they use, the websites they visit, the content on which they focus the most, and the information they share online.
- **Interviewing customers.** Questioning customers to uncover their unmet needs and gather insights about novel ways in which these needs can be fulfilled is a logical place to start the search for new ideas. After all, customer acceptance is a key factor in the success of a new offering. Yet, even though customers are an important source for generating new ideas, they are not always able to articulate their needs clearly and suggest viable new products. As Henry Ford famously said, "If I'd asked people what they wanted, they would have said a faster horse." Being overly focused on consumers who may not really know what they want, or what is possible, can result in shortsighted product development and miss potential breakthroughs. This is one of the reasons why some companies, including Apple and IKEA, tend to take consumer input with a grain of

salt in the belief that focusing on customers' current needs can lead to incremental rather than breakthrough innovation.[11]

- **Interviewing employees.** Employees can be a source of ideas for developing new products and services. For example, Toyota reports that its employees submit 2 million ideas annually (about 35 suggestions per employee), over 85 percent of which are implemented. LinkedIn launched an in-house incubator that allows any employee to organize a team and pitch a project to a group of executives. The company has also created "hackdays"—one Friday a month when employees work on creative projects.
- **Interviewing experts.** Encouraged by the open innovation movement, many firms are going outside their boundaries to tap external sources of new ideas, including scientists, engineers, patent attorneys, university and commercial laboratories, industrial consultants and publications, channel members, marketing and advertising agencies, and even competitors.
- **Analyzing the competition.** Companies can find good ideas by researching the products and services of other companies, discovering what customers like and dislike about these products. In addition, they can acquire competitors' products, reverse-engineer them, and design better ones. Knowing competitors' strengths and weaknesses can help the company establish the optimal brand positioning for a new product and the right points of parity and points of differences.[12]
- **Crowdsourcing.** The traditional company-driven approach to product innovation is giving way to a world in which companies are turning to crowdsourcing to generate new ideas and to co-create products with consumers. **Crowdsourcing** lets companies engage outsiders in the new-product development process in rich and meaningful ways and receive either unique expertise or a different perspective on the problem that might otherwise be overlooked.[13] For example, when Baskin-Robbins ran an online contest to pick its next flavor, 40,000 consumers entered. The winning entry combined chocolate, nuts, and caramel and was launched as Toffee Pecan Crunch.[14]

Because different methods have their own advantages and shortcomings, companies often use combined approaches to generate new ideas. For example, when Procter & Gamble was looking to create a dishwashing detergent "smart enough" to reveal when the right amount of soap has been added to a sink full of dirty plates, it reached out to a global network of volunteer tinkerers, including professionals, retired scientists, and students. As it happened, an Italian chemist working from her home laboratory had pioneered a new kind of dye that turns dishwater blue when a certain amount of soap is added. For $30,000 in prize money, the company had a solution.[15]

Concept Development

Concept development embodies a potentially viable idea by creating an initial version, or prototype, of the company's offering. The **prototype** is a working model of the offering that aims to flesh out the original idea and weed out potential problems before the actual offering is created. Concept development improves the chances of market success by evaluating consumer response to the offering's core benefits in order to create a product with maximum market potential.

PROTOTYPING

Concept development typically evolves from a description of the product's core features into the scaled-down prototype that introduces the offering's core concepts to target consumers. Prototypes don't have to be functional; rather, they might be rough models that offer a preliminary glimpse of how the proposed offering will fulfill an identified market need, put together solely so that the company can gauge the reaction of potential customers. As such, the prototype addresses only the most important aspect(s) of the potentially viable product or service.

The complexity of prototypes can vary widely. Prototypes can be simple representations of an offering's underlying concept—for example, a diagram that illustrates how the offering will function, a drawing that outlines the overall look and feel of the offering, or a model that incorporates only some of the core functions proposed for the market-ready model. Other prototypes might be much more advanced and may at times even approach the final version of the offering.

The level of prototype complexity is usually geared to various stages of the new-product development process. During the idea-generation and concept-development stages of the offering, simpler, more basic prototypes usually suffice. On the other hand, the more advanced stages of product development typically call for more refined prototypes. This is particularly true when the validated product concept is almost ready to be translated into a marketable offering.[16]

Firms rigorously test prototypes to see how they perform in different applications and to ensure that the final product will be well received in the market. There are two types of prototype tests: **alpha testing**, which involves an evaluation of the product within the firm, and **beta testing**, which tests the product with customers.

For example, Vibram, which makes soles for different types of shoes designed for sports that include skateboarding, cycling, and rock climbing, employs a team of experts to alpha test its products. The company evaluates its products under the most extreme conditions by executing tests directly in the field and employing a series of procedures. One Vibram executive described the way it tests products:

> If our chemist creates a new compound targeted towards road running applications, first we perform a battery of lab tests to understand the compound's physical properties. Next, we bring natural environments and surfaces into the laboratory and calculate information. Then lastly shoes are distributed to our tester team who will document things like weather/temp, distance, location, and running surfaces, etc. They'll comment on the differences in the grip of the soles. We then compile the results and make a decision on validation.[17]

Beta testing can bring consumers into a laboratory or give them samples to use at home. Procter & Gamble has on-site labs such as a diaper-testing center where dozens of parents bring their babies to take part in the studies. To develop its Cover Girl Outlast all-day lip color, Procter & Gamble invited 500 women to come to its labs each morning to apply the lipstick, record their activities, and return eight hours later in order that the remaining lip color could be measured. This resulted in a product that included a glossy moisturizer women could apply on top of the color without looking in a mirror. Microsoft has an "Insider Program" that rolls out versions of its new products months in advance to customers and developers who might be interested in what the next iteration of the Windows operating system will look like.

Business products can also benefit from market testing. Expensive industrial goods and new technologies normally undergo alpha and beta testing. During beta testing, the company's technical people observe how customers use the product, a practice that often exposes unanticipated problems of safety and servicing and alerts the company to customer training and servicing requirements. The company can also observe how much value the equipment adds to a customer's operation as an input to subsequent pricing.

CONCEPT VALIDATION

Concept validation typically assesses the soundness of the core concept underlying the proposed offering by addressing the technological *feasibility* of the offering and the way target customers view its *desirability*. Thus, to validate the concept, a manager should answer two key questions: *Can a functional prototype and, later, a fully functional version of the offering be built?* and *Does it fulfill the identified customer need better than the alternative options?*

Concept development and validation are typically guided by experimental studies designed to test the prototypes produced by the company. To this end, a study might involve varying one or more aspects of the prototype and observing the effect of these changes on customers' reactions to the offering—a process also referred to as A/B testing. Based on the outcome of the experiment, the company either proceeds to develop a business model for the offering or goes back to the drawing board to formulate new ideas and concepts that incorporate the knowledge gained from the test. Another commonly used approach is **conjoint analysis**, which involves asking respondents to evaluate a series of different combinations of attributes of an offering in order to determine the value that consumers place on specific attributes of this offering.

Business-Model Design

Up to this point, the product has existed only in the form of a description, a drawing, or a prototype. The next step represents a jump in investment that dwarfs the costs incurred so far, requiring the company to determine whether the product idea can be translated into a commercially feasible offering. **Business-model design** also takes the offering's *viability*—its value-creating capacity—into consideration, in addition to concept development's focus on the technological *feasibility* and the *desirability* of the offering. If the business model is validated, the concept can move to the development stage. If the business-model analysis suggests that the offering is unlikely to create market value for the company and its customers, the offering concept (and sometimes the underlying idea) must be revised and reevaluated.

DESIGNING THE BUSINESS MODEL

Designing the business model involves three key components (discussed in detail in Chapter 2): identifying the target market, articulating the offering's value proposition in that market, and delineating the key attributes of the market offering (Figure 18.3):

- The **target market** is the market in which the company has chosen to create value with its offering. Included in the target market are the target customers that the company has identified as potential purchasers of the offering, competitors that are also vying for the target customers, collaborators that will help the company distribute the offering and serve the target customers, the company itself, and the context of the market in which the company operates.
- The **value proposition** details the type of value that the company plans to create for its target customers and collaborators in the market, as well as the way in which the company plans to capture some of this value for itself.
- The **market offering** describes how the company will create, communicate, and deliver value to its target customers, collaborators, and the company stakeholders. This involves specifying the product, service, brand, price, incentives, communication, and distribution aspects of the company's offering.

The creation of market value is the ultimate goal of the business model. Accordingly, the success of an offering is determined by the degree to which it can create value for its target customers, collaborators, and the company. Thus, the design of a business model for a new offering is guided by three key questions: *Does the offering create value for target customers? Does the offering create value for the company collaborators?* and *Does the offering create value for the company?*

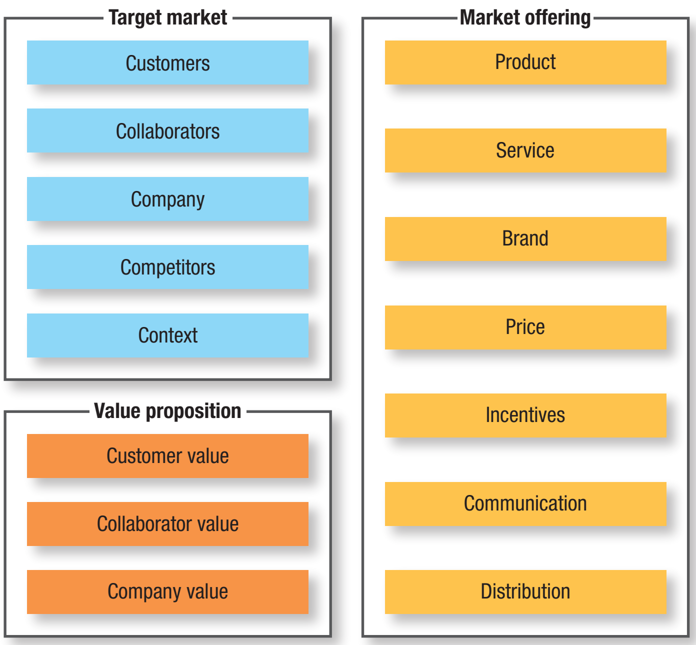


FIGURE **18.3**

The Key Components of a Business Model of a New Offering

Source: Alexander Chernev, *Strategic Marketing Management: Theory and Practice* (Chicago, IL: Cerebellum Press, 2019)

The key principles involved in developing the value proposition and the process of creating customer, company, and collaborator value were discussed in detail in Chapter 2.

BUSINESS-MODEL VALIDATION

Business-model validation aims to assess the offering's ability to create market value on three key dimensions: desirability, feasibility, and viability.

- *Desirability* indicates the extent to which target customers perceive the offering to be attractive. The desirability of an offering hinges on its ability to deliver the benefits sought by customers at a reasonable expenditure of money, time, and effort. The inability to achieve an optimal balance of benefits and costs can hinder an offering's desirability. An example is Crystal Pepsi, a clear, caffeine-free alternative to regular colas: The offering failed to gain traction in the market, despite a massive promotional campaign, because consumers did not find the concept of clear cola appealing.
- *Feasibility* indicates the extent to which the company can create an offering that delivers the functionality desired by customers. Feasibility hinges on both current technologies and a company's expertise in using these technologies. For example, a perpetual motion machine that can operate indefinitely without an energy source is not a feasible concept.
- *Viability* indicates the extent to which an offering can create value for the company. For most companies, a viable offering is one that is able to generate profits. Thus, viability is typically a function of expected revenues and the cost structure of an offering; an inability to balance revenues and costs often is an indication of impending market failure. Pets.com lost money on most sales and ultimately was unable to stay in business despite high name recognition and a high-profile promotional campaign.

Because a company's success is based on the desirability, feasibility, and viability of its offerings, to create a sustainable business model a manager must answer the following three questions: *Do target customers find the offering desirable, and does it create value for these customers? Is it feasible for the offering to be built as planned?* and *Is the offering viable—that is, able to create value for the company and its collaborators?*

An offering's desirability, feasibility, and viability are interrelated. An offering that customers do not find desirable would probably not be viable because it would not create sufficient customer demand to create value for the company. An offering that is not technologically feasible would be likely to prove undesirable because it would not be able to meet customer needs.

An important aspect of validating a company's business model in general, and an offering's viability in particular, is ensuring that the offering addresses a need that is perceived to be important to a customer segment is large enough to create value for the company. In this context, demand forecasting—a process that involves identifying the size of the potential market for the company's offering—is an integral aspect of developing new offerings.[18]

Demand forecasts are built on one of three information bases: what people say, what people do, or what people have done. Using what people say requires surveying buyers' intentions, composites of sales force opinions, and expert opinions. Building a forecast on the basis of what people do means putting the product into a test market to measure buyer response. To use the final basis—what people have done—firms analyze records of past buying behavior or use time-series analysis or statistical demand analysis. Different approaches to demand forecasting are discussed in detail later in this chapter.

Offering Implementation

Implementing the offering turns the concept into a reality. It involves two key aspects: *developing the necessary resources* to put the business model into action and *developing the market offering*.

DEVELOPING THE CORE RESOURCES

To succeed, a company must have the necessary resources to implement its business model. Often, at the time a company develops the offering's concept and designs its business model, it does not have all of the resources necessary to create and launch the market offering. Thus, after the business model has been designed, the logical next step is to develop the necessary resources by building, outsourcing, or acquiring them.

Resources required to launch a new offering involve factors such as *business facilities* that include procuring and preparing manufacturing equipment, creating call centers to service customers, and developing an information technology infrastructure; *supply channels* to obtain the materials needed to create the offering; *distribution channels* through which the offering will be delivered to target customers; *skilled employees* who can contribute the required technological, operational, and business expertise; and *access to capital* to secure the financial resources needed to implement the business model.

To gain the resources needed to successfully launch the new offering, a company might adopt one of two different strategies. First, the company might create its own resources either by internally developing its assets and capabilities or by acquiring the necessary resources from a third party. Alternatively, rather than building its own resources, a company might choose to collaborate with other entities that have the resources required to help develop, manufacture, distribute, and promote the offering, and leverage these resources without assuming ownership of them.

DEVELOPING THE MARKET OFFERING

Developing the market offering involves turning the prototype into a market-ready commodity. This involves not only creating the final product and service but also building the brand, setting both retail and wholesale prices, determining the type of sales promotions to be used, and developing a plan to effectively communicate the benefits of the offering and make it available to target customers.

The development of an offering often involves advanced prototyping and market testing to ensure that the offering will succeed in creating market value. The amount of prototyping and testing needed is influenced by a variety of factors, such as product novelty, product complexity, and the investment required to modify the offering after it has been launched. New-to-the-world products warrant more market testing than products that involve slight modifications from what is already available in the market. More complex products are more likely than simpler products to benefit from market testing. Products that will require high levels of investment in modification after launch (e.g., retooling the manufacturing plant to modify the design of a car) are in greater need of advance prototyping and market testing than products that can be modified relatively easily post launch.

An important decision involved in test marketing is determining in which markets and with which customers the offering should be tested. A number of considerations come into play for this decision. Many major global consumer-goods makers such as L'Oréal, Philips, and Nikon like to test in South Korea because its consumers are known to be demanding but fair-minded, and its well-developed marketing infrastructure helps ensure that products are in good enough shape to enter other global markets. Gucci tests many of its luxury products in China because consumer preferences there are indicative of where the luxury market is heading.

Many companies skip test marketing despite its benefits and rely on faster and more economical testing methods. Starbucks regularly launches products before they have been deemed "perfect," based on the philosophy espoused by chief digital officer Adam Brotman: "We don't think it is okay if things aren't perfect, but we're willing to innovate and have speed to market trump a 100% guarantee that it'll be perfect." The company's mobile payments app had a number of flaws that needed correcting during its first six months after launch, but it now generates three million mobile transactions a week.[19] General Mills prefers to launch new products in 25 percent of the country, an area too large for rivals to disrupt. Managers review retail scanner data, which tells them within days how the product is doing and what corrective fine-tuning is needed.

When developing a new offering, a company can create a fully functional, full-scale version of the product prior to launching it in the market. Alternatively, a company might develop a streamlined version that incorporates only features that are essential to fulfilling the customer need. The development of a streamlined version of the offering—referred to as a *minimum viable offering*—enables the company to test the offering's market performance before proceeding to develop the full-scale offering.

Commercial Deployment

Commercialization informs target customers about the company's offering and makes the offering available to these customers. Because large-scale rollouts are characterized by greater uncertainty and higher costs, companies often choose to launch the offering in a few select markets before making it available to all target customers. The key aspects of commercialization—*selective market deployment* and the subsequent *market expansion*—are outlined here.

SELECTIVE MARKET DEPLOYMENT

A key commercialization decision is whether a company should launch its new offering to all target customers delineated in its business model or initially deploy its offering only in selected markets, gradually expanding availability until the offering reaches its full market potential.[20] Many companies have adopted the **selective market deployment** approach, which allows them to conduct testing in a natural environment and observe how target customers, competitors, and company collaborators react to the offering.[21]

The smaller scale of selective market deployment provides the company with greater agility to adjust various features of the offering to maximize its impact in the marketplace. In addition to enhancing agility, selective market deployment requires fewer company resources to launch the offering and has the potential to bring in revenues to help defray the cost of the subsequent market expansion.

The subset of target customers to which the offering will initially be made available is referred to as the **primary target**. The primary target typically involves customers who are most likely to buy the company's offering and who will help the company to refine the offering and generate an initial stream of revenue.

Some products catch on immediately (roller blades), whereas others take a long time to gain acceptance (diesel engine autos). One new-product concept that quickly took hold was StubHub, an online ticket-reselling service.

StubHub The founders of StubHub, Jeff Fluhr and Eric Baker, came up with the idea for their site when they were Stanford MBA students. Realizing there were far too many unused tickets for sporting events, theater events, and concerts, they decided to set up an "eBay for tickets" where sellers could set a price higher or lower than face value, depending on demand. StubHub would take a 10 percent cut from the buyer and a 15 percent cut from the seller on every purchase. The service had to negotiate state laws restricting ticket reselling, but by 2006 it was making $100 million in revenue, split between sports (75 percent), concerts (20 percent), and theater (5 percent) in a market estimated to be worth $4 billion in the United States. StubHub was sold to eBay for $310 million in 2007 (in 2020 eBay sold StubHub to Swiss online ticket marketplace Viagogo). Original-ticket seller Ticketmaster and its Live Nation parent have fought the company from the start, threatening legal action, introducing paperless tickets that limit reselling, and launching the TicketExchange service to compete. StubHub has set its sights on being more than a ticket marketplace and becoming a multiplatform e-commerce site. With close to 40 percent of primary tickets going unsold, StubHub is also emphasizing helping consumers discover events and attend more of them.[22]

MARKET EXPANSION

Expanding the market to include all customers for whom the company's offering aims to create value is the next logical step after the company's offering has been successfully launched in its primary target market.

<< StubHub, a leader in online secondary ticket marketplaces, is considering other e-commerce options while adding a more emotional component to its core business.

Market expansion typically involves three key activities: ramping up the facilities involved in the offering's production, promoting the offering to all target customers, and ensuring that the offering is available to the entire target market. During market expansion, a company typically moves upstream on the path of least resistance and the path of least resources to attract customers who are more difficult to reach and who are less likely to recognize the value of the company's offering. As a result, the company will probably expend more time, effort, and resources during market expansion than during initial market deployment.

Broader markets usually involve a wider range of customers, which frequently necessitates introducing variants of the offering to accommodate the different needs and preferences of all target customers. Thus, a company might enter the market with a single offering that appeals to its most likely adopters, and then introduce variations that appeal to the wider range of customer needs within the expanded target market. The increased assortment of company offerings associated with market expansion, in turn, calls for additional resources to ensure the market success of these offerings.

marketing INSIGHT

Understanding the Adoption of Innovations

Designing effective products that are likely to succeed in the marketplace requires a thorough understanding of the process by which customers evaluate products, knowledge of the factors on which they base their decisions, and awareness of how quickly they adopt products. The term *diffusion of innovation* refers to the way knowledge of a product, service, or idea spreads to the marketplace and the speed with which it is purchased or used. Two popular frameworks that examine customers' reaction to new offerings are outlined below.

Rogers' Model of Adoption of Innovations

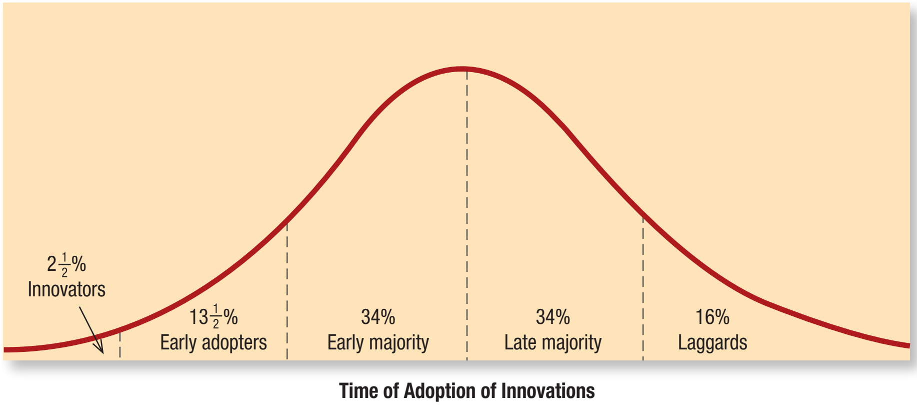
Rogers' model, named after the American sociologist Everett Rogers, classifies customers according to the speed with which they adopt new offerings. This model defines level of innovativeness in terms of whether an individual adopts new ideas relatively earlier or later than other consumers. Rogers' model is based on the notion that some customers are more open than others to embracing innovative products. Depending on the timing of new-product adoption, the Rogers model divides customers into five categories (Figure 18.4):

- *Innovators* are technology enthusiasts; they are venturesome and enjoy tinkering with new products and mastering their intricacies. In return for lower prices, they are happy to conduct alpha and beta testing and to report on weaknesses in the early offering. Innovators are defined as the first 2.5 percent of adopters.
- *Early adopters* are opinion leaders who carefully search for new technologies that might give them a dramatic competitive advantage. They are less price

FIGURE **18.4**

Adopter Categorization on the Basis of Relative Time of Adoption of Innovations

Source: E. Rogers, *Diffusion of Innovations* (London: Free Press, 1962).



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sensitive and are willing to adopt the product if given personalized solutions and good service support. Early adopters are defined as the 13.5 percent of adopters following the innovators.

- The *early majority* includes deliberate pragmatists who adopt the new technology after its benefits have been proved and much adoption has already taken place. The early majority makes up the mainstream market and includes the next 34 percent of adopters.
- The *late majority* encompasses skeptical conservatives who are risk averse, technology shy, and price sensitive. The late majority consists of the next 34 percent of adopters following the early majority.
- *Laggards* are tradition bound and resist an innovation until the status quo is no longer defensible. The laggards make up the remaining 16 percent of the adopter population.

Each group requires a different type of marketing if the firm wants to move its innovation through the full product life cycle. In addition to or instead of targeting opinions leaders, some experts advocate targeting **revenue leaders** with a new product—those customers with higher customer lifetime value—to accelerate the path to profitability.

Rogers' model is a classification model; even though it divides individuals into five distinct categories based on the speed with which they adopt new offerings, it does not provide a decision rule that can be used to determine the category to which a particular individual is likely to belong. Furthermore, because individuals are assigned to one of the five categories based on relatively stable personality traits, this model does not account for the fact that a customer who is an innovator in one domain might be a laggard in another. Because of these limitations, the Rogers' model has limited applicability and is confined to describing five types of innovation adopters.

Moore's Model of Adoption of New Technologies

Named after organizational theorist Geoffrey Moore, **Moore's model** adapts the Rogers model specifically to technology products. It places technology adapters into five categories that more or less reflect the five categories specified by the Rogers model based on how open they are to adopting technological innovations. Here are the five classes of adopters of innovation in the Moore model:

- *Technology enthusiasts* are the innovators who are committed to technological innovations and are typically the first group to want to experience new technologies.
- *Visionaries* (early adopters) are also among the first to adopt new technologies in order to solve their problems, fulfill their needs, and take advantage of emerging market opportunities.
- *Pragmatists* (early majority) rely on innovation as a productivity tool. They are unlike enthusiasts in that they do not adopt technological innovations for their own sake. And they differ from visionaries in that they apply technology to enhance existing business models rather than to change them.
- *Conservatives* (late majority) are pessimistic about deriving significant benefits from emerging technological innovations and thus are slow to adopt them.
- *Skeptics* (laggards) tend to be very critical of technological innovations and are unlikely to adopt them despite their benefits.

Rogers' model assumes that the adoption of innovations is a continuous process and that after the innovation reaches market saturation in one segment, it will roll over into the next segment. Moore's model, on the other hand, argues that the adoption of innovations is a discontinuous process involving certain "gaps" and that the adoption of an innovation by one segment does not necessarily mean that the innovation will be adopted by another segment. This is because different consumer groups exhibit different patterns of adoption, each of which requires a different marketing strategy. For example, the fact that technology enthusiasts have embraced an innovation does not imply that it will be widely adopted by visionaries, who may view the technological innovation in a completely different light.

Moore defines the largest gap in the innovation-adoption process as the one that exists between the early adopters, the segment made up of technology enthusiasts and visionaries, and the mainstream market of technology pragmatists, conservatives, and skeptics. He defines this as the "chasm" and views it as the most significant challenge in developing technology innovations and the key hurdle that technology pioneers must overcome if they are to succeed in having their offerings widely accepted.[23]

summary

1. Innovation is the key to developing viable new offerings. Innovation can involve a new technology, a new approach to brand building, a new pricing mechanism, a new way of managing incentives, new channels of communication, or a novel distribution method. Innovative offerings disrupt existing business models and make companies that fail to adapt to changing market conditions superfluous by devising new ways to create market value.
2. Successful new-product development requires the company to establish an effective organization for managing the development process, which can include product managers (of either the new product or existing products), committees, departments, or venture teams. Increasingly, companies are adopting cross-functional teams, connecting to individuals and organizations outside the company through crowdsourcing and other means, and developing multiple product concepts.
3. New-product development is an *iterative process* of discovering a novel idea and translating this idea into a viable, successful market offering. New-product development is represented as a sequence of actions (stages) separated by hurdles (gates) that the new offering must overcome. The stage-gate approach divides the innovation process into five key stages—*idea generation*, *concept development*, *business-model design*, *offering development*, and *commercial deployment*—separated by gates that serve to validate the actions taken in the previous step.
4. Innovation begins with *generating an idea* that pinpoints an unmet market need and suggests a novel way to address this need. There are two basic methods of idea generation: top-down idea generation, which begins with identifying a market opportunity, and bottom-up idea generation, which starts with an invention and then seeks to identify an unmet market need that it will satisfy. Top-down idea generation is the preferred approach for developing new offerings.
5. *Concept development* embodies a potentially viable idea by creating an initial version, or prototype, of the company's offering. Concept development aims to reduce market and implementation risk by designing the offering in an expeditious and resource-efficient way. Concept development typically evolves from a description of the product's core features to a scaled-down prototype that features the offering's core functionality.
6. Designing the *business model* involves three key components: identifying the target market, articulating the offering's value proposition in that market, and delineating the key attributes of the market offering. The target market delineates the market in which a company's offering aims to create value. The value proposition describes the value that the company plans to create for target customers, collaborators, and its stakeholders. The market offering defines the ways— product, service, brand, price, incentives, communication, and distribution—in which the company will create, communicate, and deliver market value.
7. *Offering implementation* turns the conceptualized offering into an actual offering that is ready for market launch. Implementation involves gathering the necessary resources to put the business model into action and develop the market offering.
8. *Commercialization* informs target customers about the company's offering and makes the offering available to these customers. To minimize risk and resources, companies initially deploy the offering in selected (primary) markets and, upon its success, expand the availability of the offering to the entire target market. Market expansion ramps up the facilities involved in the offering's production, promotes the offering to all target customers, and ensures that the offering is available to the entire target market.
9. Two popular frameworks examine customers' reaction to new offerings. *Rogers' model* depicts the number of new adoptions, rather than total adoptions, at a given point in time and divides customers into five categories—innovators, early adopters, early majority, late majority, and laggards—based on the timing of new-product adoption. Building on Rogers' model, *Moore's model* argues that in the case of technology products, the adoption of innovations is a discontinuous process marked by distinct adoption gaps, the largest of which is the gap between the early adopters (enthusiasts and visionaries) and the mainstream market.

marketing
SPOTLIGHT

Honest Tea

Source: Michael Neelon(misc)/Alamy Stock Photo

The idea for Honest Tea came about in 1997, when Yale School of Management graduate Seth Goldman stopped for a post-workout beverage at a local convenience store. Finding only soft drinks and teas saturated with high amounts of sugar, Goldman was inspired to create a new beverage for health-conscious customers. The Honest Tea Company sought to provide a natural, barely sweetened bottled tea with a fraction of the calories of other teas. Honest Tea first used Fresh Fields to distribute its product. In one short summer, Honest Tea became the best-selling tea at Fresh Fields stores and expanded to other supermarkets and grocery stores, achieving similar success.

The Honest Tea Company identified four market trends that created the demand for a new type of tea offering in the beverage market. First, the demand for bottled tea had grown tremendously in the years prior to the company's inception. Carbonated soft drinks dominated the beverage industry, but bottled teas had become increasingly popular as a more healthful alternative. From 1992 to 1996, the market value of bottled tea had grown 60 percent. Second, American consumers had begun to develop a "tea culture." In the decade before Honest Tea was introduced, sales of loose-leaf tea more than doubled, thousands of tea shops and parlors opened, and tea became a popular topic in books and magazines. Third, health consciousness and environmental awareness were increasing, which fueled a subsequent increase in the demand for natural food and beverage products. The natural-product industry tripled in size from 1990 to 1996. Fourth, a mindset had developed among consumers labeled "Cultural Creatives," who valued the natural, ethical, and exotic aspects of drinking healthful tea and were receptive to new products such as Honest Tea.

Guided by these insights, Honest Tea designed its bottled tea using only choice tea leaves from around the world, spring water for brewing, and natural sweeteners such as cane sugar or honey. Honest Tea pledged to use organic and Fair-Trade-certified ingredients and priced their beverages affordably: A 16-ounce bottle cost about $1.50. In addition, Honest Tea contained only 17 calories per serving, a fraction of the calories in beverages such as sodas and iced coffee. Honest Tea advertised its tea primarily to three key audiences: tea drinkers who found competitors such as Snapple too sweet, bottled-water drinkers who desired fresh taste and variety, and diet soda drinkers who wanted a beverage without artificial sweeteners. Honest Tea found success in this market, and the company's yearly revenue soared to $38 million in 2008.

After Coca-Cola acquired a 40 percent stake in the company in 2008 for $43 million, the number of stores carrying Honest Tea increased dramatically, from 15,000 to over 140,000 a decade later. Honest Tea began selling in grocery stores such as Kroger, Walmart, and Costco; at retailers such as Amazon; and in restaurants such as McDonald's and Subway. Coca-Cola also provided Honest Tea with the resources to expand and introduce new-product offerings consistent with the company's brand.

Continuing with the health and wellness theme, Honest Tea introduced Honest Kids, a less sugary alternative that contains 45 fewer calories per serving than other children's juices. The organic beverage became so successful that it overtook tea as the company's best-selling product. Honest Kids has since been offered in restaurants such as Subway and Chick-fil-A and became McDonald's primary kid's juice option in 2017. Honest Tea has also released other products, including Honest Sport, an organic sports drink, and Honest Fizz, a carbonated alternative to sodas.

The growth of The Honest Tea Company has also enabled it to further act on its goal of fair trade and sustainability. In one decade after Coca-Cola's acquisition, Honest Tea's annual Fair-Trade premium increased 17-fold, improving the quality of life for its farmers and laborers. Furthermore, Honest Tea has increased the amount of recycled materials used in its beverage bottles and the amount of organic ingredients used in each drink.

The key factor in Honest Tea's success was its clear identification of an untapped segment in the sweetened-beverage market. By staying ahead of health awareness trends, the Honest Tea Company has become firmly entrenched as one of Coca-Cola's most valuable brands. The acquisition has allowed the company to offer healthful new products for different types of consumers, while still operating under the same company mission set in 1998: to create delicious, healthy, organic beverages with honesty, integrity, and an eye toward sustainability.[24]

Questions

1. What role did marketing research and customer insights play in developing Honest Tea?
2. What are the key factors that contributed to the success of Honest Tea?
3. How should Coca-Cola grow the Honest Tea brand? Should Honest Tea stay relatively independent, or should it be more closely incorporated into the Coca-Cola company and draw on Coca-Cola's corporate culture and business expertise?

marketing SPOTLIGHT

Source: Piotr Swat/Alamy Stock Photo

WeChat

WeChat is a Chinese social media, messaging, and mobile payment app developed by Tencent, a Chinese conglomerate that specializes in technology, gaming, and social media. WeChat is primarily used for messaging and communication, similar to Facebook and WhatsApp, and combines the functionality of apps like Twitter, PayPal, Reddit, and Uber. Users can also play video games, send money, voice chat, read news, share posts, order a taxi, and much more. WeChat's user base consists of over one billion daily active users, including companies, celebrities, and even hospitals that use the application as a promotional platform. Many Chinese cannot imagine life without this ubiquitous application.

WeChat began in 2010 as a social media and instant messaging application for smart phones. CEO Ma Huateng recognized that the future dominant platform for social media and messaging would be mobile phones rather than personal computers. He tasked an engineering team of fewer than 10 members to develop the first version of WeChat. The prototype version was capable only of sending text messages and pictures. Because instant messengers and SMS texting applications already existed with these features, consumers initially didn't see the app's value. WeChat's reception changed in May 2011 when the team upgraded the app to support voice messaging, which appealed to adults who were not used to typing on smart phones. Chinese businesspeople also found the increased functionality useful.

WeChat's user base skyrocketed in 2012 to over 100 million. There were two main reasons for this. First, overall Chinese smart-phone unit sales grew exponentially. In 2010, there were over 35 million smart-phone unit sales; by 2012, smart-phone unit sales had increased over fivefold to more than 210 million, which meant that a greater number of users were able to download and utilize the app. Second, WeChat growth was fueled by several innovations and features that provided a better user experience compared to competitor applications. WeChat introduced unique features like Shake, which randomly connected users who were shaking their phones at the same time, and Message in a Bottle, which allowed users to send messages to random recipients. WeChat's expanded platform also allowed users to read and share blog posts on Official Accounts and play games on the gaming platform. Competitor services like Feixin did not offer their application to users who did not have China Mobile, and MiTalk failed to provide a stable user experience, so WeChat overtook the messaging and social media market.

WeChat added payments to the platform in 2013. Initially, WeChat Pay was limited to microtransactions for games, virtual items for avatars, and mobile subscriptions. Tencent later expanded the payment platform and created WeChat Wallet, which lets users pay for goods and services at certified merchants and transfer money to other users. Four years after its introduction, WeChat Pay had over 600 million users.

WeChat Pay has improved the way Chinese users give each other hongbao, red envelopes filled with money, a popular tradition for the Lunar New Year. Users of the WeChat Red Packet can send their friends and loved ones hongbao in fun and addictive ways. For example, a user can put $5 from her or his WeChat Wallet into a virtual red envelope and have it distributed equally among five friends. Users can also have the first two recipients who tap the screen split the money in equal proportions or in a random cut. Red Packet became a massive success during the 2014 Lunar New Year, with more than 40 million hongbao sent to 8 million recipients. WeChat's Red Packet has grown to become a messaging medium in itself, with Chinese users frequently sending each other yuan amounts that have special meanings. For example, the number "520" is Chinese slang for "I love you."

One of WeChat's biggest selling points was the implementation of *mini programs* within the application. Mini programs, introduced in 2017, are best described as apps within the WeChat app. Mini programs are typically less than 10 megabytes that run instantly on WeChat without having to be downloaded from an app store. Programs load very quickly and are smoothly integrated within the WeChat platform. Many companies have developed mini programs for WeChat. JD.com, the second largest B2C e-commerce company in China, developed a shopping platform mini program. Tesla features a mini program where users can locate charging stations, schedule test drives, and share their experiences about driving a Tesla. Other mini programs include popular games, shared bike locators, and a payment tool for gas stations.

The wide variety of features that WeChat offers has helped the application become one of the largest mobile applications in the world. Although WeChat has been a widespread phenomenon mainly in China, Tencent has begun international expansion of WeChat, advertising the application's benefits to potential users in the United States, Malaysia, Singapore, and South Africa.[25]

Questions

1. What factors contributed to the phenomenal success of WeChat in China?
2. How important was WeChat's early-mover advantage in gaining and sustaining its dominant market position?
3. Can WeChat replicate its market success outside of China? Why or why not?