CASELET: AKAMAI’S MARKET OPPORTUNITY

Massachusetts Institute of Technology (MIT) business-school student Jonathan Seelig and his two mathematics colleagues, professor Tom Leighton and PhD candidate Daniel Lewin, knew they had an algorithm. What they didn’t know was whether they had a business.

The algorithm was an innovative way to bypass what in 1995 was a growing problem on the increasingly trafficked World Wide Web, aka the “World Wide Wait”—congestion. The business would become Akamai Technologies, one of the Web’s best-known early-stage success stories.

The algorithm-generating project had started as a theoretical puzzle, spurred by a conversation between Leighton and Web pioneer Tim Berners-Lee, who worried that traffic jams would eventually cripple the Web. It wasn’t long, however, before Leighton and his team realized that they were coming up with the solution not just to a mathematical problem, but a business one.

“We saw that there might be a real market opportunity out there,” Seelig says of the resulting breakthrough, a means of intelligently routing and replicating content over a large network of distributed servers. “But to seize it, we’d have to move fast. So we said, ‘We’re going to take six months, we’re going to put our shoulders to the wheel, and we’re going to see if we can build a service that matters to content providers.’ ”

Which is what they did, doggedly seeking out potential suppliers, partners, investors—and, most importantly, customers. They gathered data on the billions of dollars in e-commerce sales squandered each year as consumers lost patience with slow-loading websites. They even sent MIT undergrads into the field to canvas potential clients such as CNN and Yahoo. And they came up with a simple yet powerful value proposition: You pay us some money to make your site perform better, and you’ll make a lot more as a result.

It turned out to be a compelling pitch. In 1998, the Akamai team entered its newly hatched business plan in the MIT $50K Entrepreneurship Competition. They didn’t win, but they garnered a more valuable prize: $8 million in seed money from several prominent venture capitalists. Soon they launched with...
Yahoo as a charter customer, then made a splash with one of the hottest IPOs in an already sizzling capital market.

Seelig says that the kind of market opportunity assessment undertaken by him and his colleagues ought to be a no-brainer. But it’s not. “I judged a business plan competition once in which only three of the five finalists could answer the question, Who pays you money for your service? Who is the constituent to whom you are beholden?” he recounts. “That’s a disturbing phenomenon. You should know who is going to pay your bills. You should know who is going to make you a success.”

PLEASE CONSIDER THE FOLLOWING QUESTIONS AS YOU READ THIS CHAPTER:

1. Is market opportunity analysis unique for online firms?
2. What are the two generic value types?
3. What is the framework for market opportunity analysis?
4. How do you identify unmet and/or underserved needs?
5. How does a company identify the specific customers it will pursue?
6. How do you assess advantage relative to competitors?
7. What resources does the company need in order to deliver the benefits of the offering?
8. How do you assess readiness of the technology needed to deliver an offering?
9. How do you specify opportunity in concrete terms?
10. How do you assess the attractiveness of an opportunity?

INTRODUCTION

In Chapter 1, we examined the effect of e-commerce and some of its distinguishing features. We also briefly reviewed the decision-making process that companies must go through in order to develop an e-commerce strategy. In this chapter, we answer the first question a company must address when formulating its strategy: “Where will the business compete?” Ideally, a company would like to compete in an arena in which the financial opportunity is considerable and the competitors are scarce, and in which it can position itself well to fulfill unmet customer needs either on its own or through partnerships.

Regardless of the reasons a firm seeks online business opportunities, a successful company defines its marketspace early in the business development process. The term marketspace refers to the digital equivalent of a physical marketplace. By defining the intended marketspace, a company identifies the customers it will serve and the competitors it will face. Over time, a company’s defined marketspace may change as both the company and the market evolve, but a clear, initial definition is necessary to develop the business model.

In the last several years, we have seen an unprecedented launch (and failure) rate of startups. At the time of this writing, in August 2002, the Dow Jones industrial average had retained nearly 90 percent of its value from its high of 11,723 on
January 14, 2000. Meanwhile, the Nasdaq had retained only 35 percent of its value from its high of 5,048.6 on March 10, 2000. For some, enduring the risks associated with starting a new business will prove rewarding. But most will watch their businesses crash and burn—the historical failure rate of startup companies is about 80 percent within the first five years after launch. With the current negative investor sentiment toward technology-related firms in general and Internet firms in particular, a quick but rigorous opportunity analysis is a requisite first step toward gaining support for any proposed new business initiative. The best-performing pure Internet stocks average at less than 5 percent of their historically highest values.

Analysis of market opportunity is an essential tool for both entrepreneurs and senior managers who seek either to extend existing businesses or launch new businesses. The goal in performing this analysis is to identify high-potential opportunities and begin to form ideas about the essential elements of a business. We will need to gain greater understanding of the size and nature of the opportunity—as well as the resources of the firm—before considering the details of business models (Chapter 4).

While the resources available to a startup may vary dramatically from those available to an established corporate business unit, the manager seeking and evaluating market opportunities must have a sense of the following: the general attributes of an attractive opportunity, the company’s domain expertise and ability to pursue an opportunity, and the firm’s appetite for risk. Without an understanding of these elements, the manager has no way of deciding which opportunities to cultivate.

Also, in understanding the firm’s risk tolerance, the manager must find a balance between overanalysis at one extreme, which can lead to paralysis and indecisiveness, and blind acceptance of uncertainty and risk at the other. Good strategy analysis will not guarantee success of a new endeavor, but a quick and rational process can provide a balanced approach to defining attractiveness and increase the likelihood of pursuing an attractive opportunity in a timely manner.

In this chapter, we review some of the tools that can be used to “frame” the market opportunity. Much of this spadework will be deepened and refined as the company moves toward developing and launching a market offering. Only when this work is complete can we begin to determine the value proposition, the exact offering, and a potential revenue model.

Unique Market Opportunity Analysis for Online Firms

Before exploring market opportunity analysis in greater depth, we should consider whether this type of analysis should be any different from an analysis of opportunities in more traditional sectors of the economy. Some authors and analysts believe that opportunity analysis in the marketspace is unique and requires a different approach. We summarize this reasoning in the section that follows.
Competition Across Industry Boundaries Rather Than Within Industry Boundaries

Web-enabled business models can operate across traditional industry boundaries because they often lack physical product manufacturing or service delivery. Consequently, these businesses can more accurately match value creation from the customer’s perspective. For example, Cars.com (www.cars.com) allows customers to research and purchase new and used vehicles, finance them, insure them, and even purchase extended warranties through the website and its partners. Limiting opportunity assessment to traditional definitions of industry or value system could result in missed market opportunities.

Competition Between Alliances of Companies Rather Than Between Individual Companies

Many technology-based products have a high degree of reliance on other related, complementary products; for example, Web businesses are reliant on browser technology, and browsers are dependent on operating systems, PCs, and modern technologies. Furthermore, the networked nature of the Web means that several companies can easily team up to create a seamless offering. Companies can often find themselves in “co-opetition” with each other, where they are both competitors and collaborators. For example, Amazon.com and Target.com directly compete online as suppliers of electronics, kitchen appliances, and housewares, yet they are also partners. Toys “R” Us and Target have each entered into third-party service agreements with Amazon. Amazon.com provides each with the technology to manage the entire virtual supply chain, complete with fulfillment services. In assessing the resources necessary to succeed, managers must examine both internal and external possibilities, rather than assume the company must perform all alone.

Competitive Developments and Response at Unprecedented Speed

Advances in technology and the adoption of creative business models are occurring at a rapid pace. During the “browser wars” between Microsoft and Netscape, each firm introduced a new version of its product approximately every six months. Any market opportunity assessment must be continually refreshed by keeping abreast of important trends or events that could redefine opportunity attractiveness.

Unique Ways to Bring Value to Consumers and Change Behavior

Most modern marketing textbooks emphasize the importance of being customer-focused. This means that businesses must analyze customer needs, define products that meet those needs, and implement defendable strategies. In the past, competitive battles were frequently fought over a well-defined set of consumer behavior patterns (e.g., consumers shopping in grocery stores). Now, new software and hardware have tilted the landscape of consumer behavior. Companies introduce products, leading to new behavior and new customer requirements. The challenge is to listen closely enough to today’s customers to develop insights about opportunities without being
lulled into simply meeting customers’ established needs. To state the obvious: Customers do not know what they do not know. The company’s task is to define new experiences that customers will recognize and seek, based on insights into how customers are acting today and why.

Take, for example, the emergence of file-sharing services such as Napster, Gnutella, Kazaa, and Morpheus, which enable users to search, share, and copy files of any format—including MP3 music, games, movies, software, and spreadsheets—across a global distributed network. Introduced in the fall of 1999, Napster revolutionized consumer behavior in the recorded music industry by providing users an easy way to “swap” electronic music files. Then, in the spring of 2000, a new version of Napster emerged that allowed the swapping of any file format. Soon, other free services won millions of users by imitating the Napster model. While part of the allure was that these files were free, consumers also enjoyed the benefit of being able to search for singles, find rare songs and/or rare performances by their favorite artists, and easily burn electronic files onto compilation CDs.

While Napster and other file-swapping companies have had well-publicized financial and legal problems, they still illustrate how companies can fundamentally change the way that consumers think about information, services, and products. At this writing, four legal online music services were available: Full-Audio’s MusicNow (www.fullaudio.com), Listen.com’s Rhapsody (www.listen.com), MusicNet (www.musicnet.com), and pressplay (www.pressplay.com). Bertelsmann Music Group (BMG), EMI Group, Sony Music, Vivendi Universal, and Warner Music—along with their trade organization, the Recording Industry Association of America (RAIA)—fear rampant online piracy. They argue that piracy is responsible for the 5 percent drop in worldwide music sales in the years 2000 and 2001. And while Napster will probably survive in some new form still to be defined, there is no doubt that consumers’ attitudes and behaviors toward digital recordings of music have been permanently changed.

**Industry Value Chains and Value Systems Rapidly Reconfigured**

The Internet allows firms and industries to reconfigure their value chains (discrete collections of individual and organizational activities that work together to create and deliver customer benefits via products or services) or value systems (an interconnection of processes and activities within and among firms that creates benefits for intermediaries and end-consumers) by increasing the level of information throughout the value chain, enabling constant contact between customers and businesses, and eradicating or significantly reducing the cost of stages in the value chain. For example, Dell Computer Corp. provides the ability for customers to purchase personal computers online (www.dell.com) or by telephone. Dell is unique in that it sells only direct-to-customer, and each computer is built-to-order. Dell uses the Internet and supply-chain management software to achieve extreme process efficiency. With improved material management by better inventory planning, forecasting, and execution, Dell was able to reduce computer parts inventory levels in its factories from days to hours. Inventory is procured from suppliers in real time, and materials are delivered to the factories every two hours based on customers’ orders. The custom-configured computer system can be shipped to the customer for next-day delivery.
Drill-Down

First Mover: Advantage or Liability?

Amazon.com launched in July 1995—the Cretaceous period of Internet time—and was the first national bookseller on the Web. Barnes & Noble, the nation’s largest bricks-and-mortar book retailer, did not open its virtual doors until 1997. By then, Amazon was Tyrannosaurus Rex, king of the online booksellers, and it dominated the terrain. Barnes & Noble has yet to catch up.

Does being second—or late—to the Web mean a company will have to lag behind its competitors in sales and performance? Not necessarily. For some companies, being late to the online market can be an advantage. Virgin Megastores Online launched its e-commerce platform in May 1999, well after CDNow and Amazon had gained broad recognition for selling music and videos via the Web. “We didn’t want to replicate existing entertainment online sites, and we had the advantage of watching our competitors, particularly in terms of marketing,” said Dave Alder, Virgin Megastores Online’s general manager and senior vice president. “We didn’t want to spend $200 per head on customer acquisition.”

Virgin leveraged the brand it had developed over 30 years in dozens of stores worldwide and tapped a loyal customer base through cross-marketing. Alder cites webcasts of exclusive in-store artist appearances as a particularly successful element of the company’s clicks-and-bricks strategy. “We’re very determined to utilize the marketing tools we’ve already got in the business. We can use online events to liven up the stores and vice versa.” Alder said the website has already paid off, since it was used to create a system that tracks whether store revenues are affected by the online research of customers.

But what strategies can startups use to gain an edge? Underselling your competitors to attract a large customer base is one possibility. Latecomers can also employ new, attention-grabbing strategies to draw customers. When Hotmail introduced its free e-mail service in July 1996, several similar services were already on the market. But Hotmail managed to sign up 10 million subscribers in its first 18 months, surpassing competitors by turning its users into salespeople through viral marketing (see Chapter 6). “Latecomers,” said Michele Pelino, program manager of the Yankee Group’s Internet marketing strategies team, “can really learn from what early entrants have done in the past.”

Two Generic Value Types

To explore the notion of value creation, we must first look for a set of activities ripe for positive transformation, either within a firm or across activities conducted by multiple firms. A firm is made up of a series of connected activities—from purchasing inputs to manufacturing to marketing and sales to product delivery to after-sales support—that result in the creation of an end product or the delivery of a service. In addition, there are supporting activities necessary to ensure a company’s viability, from financial planning and control to employee recruiting and training to research and development.

In the same way that many of these activities are interconnected within one company, there are also connections with other companies or consumers. Both the activities within a firm (the value chain) and those connecting firms with other firms and customers (the value system) are potential candidates for value creation. Furthermore, if we look across several related indus-
tries in the same manner as customers, we may find cross-value chain opportunities.

Exhibit 3.1 shows a simplified value system for the automobile industry. The value system encompasses the value chains of multiple companies, each of which plays a part in the automobile industry. For example, this value system includes steel manufacturers, component manufacturers, auto manufacturers, dealerships, maintenance shops, and used-car dealers. Each of these industry members has its own value chain. The value chain of auto manufacturers includes primary activities (such as designing autos, building and testing prototypes, sourcing components and parts, and assembling the autos) as well as key support activities (such as marketing and finance).

A number of Internet businesses have chosen to compete in the automotive marketspace, in part because the value system is extremely complicated and presents many opportunities for value creation. Autobytel.com is one such company. Exhibit 3.1 includes a simplified value chain for Autobytel.com that shows how the company has aggregated several activities across the value system—including allowing car buyers to research vehicles, e-mail a purchase inquiry to a local dealer, arrange financing, schedule the delivery of the vehicle, compare insurance rates, set up a schedule to manage their car’s maintenance, and post a classified ad to sell their old vehicle—without leaving the keyboard. Autobytel.com created value both within the value chain (e.g., by providing panoramic interior photos) and across the value system (by allowing users to check car inventories at dealers across the country).

Firms should look at the value system with a lens that yields ideas about new business possibilities. Specifically, a firm looks for either trapped value to be liberated, or new-to-the-world value to be introduced.

Trapped Value
Online companies have unlocked trapped value by delivering existing benefits better or reducing costs. Forms of trapped value include creating more efficient markets, creating more efficient value systems, enabling ease of access, and disrupting current pricing power.

Creating More Efficient Markets
By lowering search and transaction costs, the market is made more efficient—customers can buy what they want at a lower net cost. EBay, for example, allows almost anyone to trade almost anything on a local, national, or international basis. Users can trade online by auction-style or fixed-price formats for a wide variety of items such as automobiles, jewelry, musical instruments, cameras, computers, furniture, sporting goods, tickets, and boats.

Creating More Efficient Value Systems
Compressing or eliminating steps in the current value system can result in greater efficiencies in time or cost. For example, Federal Express has been moving its customer interactions into the marketspace since 1982, when the firm first started equipping its major customers with dedicated terminals; enabling customers to request pickups, find drop-off points, and track shipments over the Internet was a natural development. Today, the company estimates that it would need an additional 20,000 employees to handle the tasks
CHAPTER 3  Market Opportunity Analysis

EXHIBIT 3.1 Car Manufacture and Sales Value System
that customers handle themselves. By connecting directly with its customers, FedEx removed the duplication of tasks such as the reentry of shipping data.

**Enabling Ease of Access**

Enabling ease of access entails enhancing the access points and the degree of communication between relevant exchange partners. The Internet allows bricks-and-mortar companies such as Target and Gap to be constantly available to their customers. Other companies make searching for products or services easier. Guru.com, for example, expedites access to hard-to-find professional experts across a wide range of fields.

**Disrupting Current Pricing Power**

Beyond making markets more efficient, this value-unlocking activity changes current pricing-power relationships. Customers can gain more influence over pricing and capture a portion of the vendor’s margin when they have more information about relative vendor performance, a deeper understanding of vendor economics, or insight into the vendor’s current supply-demand situation. For example, BizRate.com allows online shoppers to comparison-shop for price and quality of service. BizRate.com presents current vendor asking prices and customer satisfaction ratings (aggregated from customer responses) for each store.

**New-to-the-World Value**

In addition to reconfiguring existing value chains to release trapped value, online companies can create new-to-the-world benefits that can enhance an existing offering or be the basis for creating a new offering. In this section, we present five ways companies can create new value: customize the offerings, radically extend reach and access, build community, enable collaboration among multiple people across locations and time, and introduce new-to-the-world functionality or experience.

**Customize Offerings**

The Internet allows companies to tailor their offerings more flexibly than they ever could in the offline environment. By adding personalization to news and stock quotes through its “MyYahoo” function, Yahoo creates value for customers who previously had to navigate through “one size fits all” news and information services over the Web. A MyYahoo page contains just a small subset of all available information, but it is information that is relevant to the user.

**Radically Extend Reach and Access**

Companies may extend the boundaries of an existing market or create a new market by delivering a cost-effective reach. Keen.com created an entirely new market by building a virtual marketplace for advice. Anyone can advertise their services as an advisor on such subjects as “managing your love life” or “choosing a career.” Customers log on to the site, choose an advisor, and are connected to the advisor for a per-minute fee.
CHAPTER 3  Market Opportunity Analysis

Build Community
The Internet enables efficient community-building, as demonstrated by the explosion of chat rooms addressing myriad topics. Beyond chat rooms, companies also foster the building of public and private communities. MyFamily.com seeks to bring together the far-flung modern family by enabling conversation, picture sharing, and recipe exchange, among other things.

Enable Collaboration
In the networked world, people are working together more efficiently and more effectively than ever before. Autodesk Inc.’s ProjectPoint offers users in the building industry a secure, shared project workspace online. Project documents and communications are centralized in a single secure online location that is easily accessible by team members across the building design, construction, and management process.

Introduce New-to-the-World Functionality or Experience
The convergence of communications, computing, and entertainment, as well as the ever-changing form and functionality of access devices, is making new experiences possible. The Internet fosters broad access and participation in these new experiences. NNT DoCoMo, Coca-Cola, and Itochu Corp. have partnered to install what they refer to as “C-Mode” networked vending machines that will allow i-mode phone users throughout Japan to not only purchase Coke products but also access local information and buy tickets to local attractions via the vending machines.6

Value Creation
To define where in a value system or value chain a company should focus its development activities, two simple dimensions must first be considered—horizontal versus vertical plays. In the business world, horizontal plays improve functional operations that are common to multiple industries and types of value systems. In the software world, horizontal plays typically tackle improving functional areas such as accounting and control, customer service, inventory management, and standard computer-aided design/manufacturing (CAD/CAM) applications. In the consumer world, horizontal plays reflect common activities in which most consumers broadly engage (e.g., paying taxes).

Vertical plays, on the other hand, focus on creating value within or among activities that are central to a particular business. Movie Magic Virtual Production Office (www.creativeplanet.com) provides an advanced suite of tools for online real-time management and reporting for film and television production in the entertainment industry. Vertical plays can often be thought of as industry-specific plays (steel industry, chemical industry, automotive industry, etc.).

At its most extreme, a “white sheet” exercise—a thorough analysis beginning from a blank slate—could systematically look for and evaluate the trapped and new-to-the-world value potential across all functions and activities pursued by businesses and individual consumers. More typically, a group of managers will have some familiarity with or interest in a particular horizontal function or vertical activity. The challenge for this group is to map out the
Two Generic Value Types

major sets of activities related to that horizontal function or vertical business at a high level. After mapping out the activities, the group should consider a series of questions designed to guide a knowledgeable manager to uncover trapped value or recognize the opportunity for new value creation. These questions include, but are not limited to, the following:

- Is there a high degree of asymmetric information between buyers and sellers or colleagues at any step in the value system that traps value?
- Are significant amounts of time and resources consumed in bringing people together to make a transaction or complete a task?
- Do customers view activities as more collapsed than do industry participants?
- Are key participants in an activity able to collaborate effectively and efficiently at critical stages in a process?
- Do people have access to necessary advice and information to maximize their effectiveness or the ability to extract maximum benefits from a given activity?
- Are people forgoing opportunities to participate in an activity due to privacy or other concerns?

At this point, the manager has a sense of where the opportunity may lie in terms of business and customer activities. The next step is to identify customers and their unmet or underserved need. As the manager begins to specify the opportunity, the potential associated with the opportunity should become more apparent.

Drill-Down

Innovation

The following is a basic and useful definition of innovation that 3M, a leading innovator and global company, provides to its employees: "new ideas plus action or implementation that results in an improvement, gain, or profit." Innovation is not an isolated act of creativity or the introduction of great ideas but a process that combines ideas with action and gainful result—ideas must be successfully brought to market as products and/or services and provide value directly to the customer or indirectly to the customer through benefit to the firm.

Types of Innovation

Dorothy Leonard describes five distinct types of innovation: (1) user-driven enhancement, (2) developer-driven development, (3) user-context development, (4) new application or combination of technologies, and (5) technology/market co-evolution.

3M categorizes innovation into three developmental types: line extensions, changes to the basis of competition, and creation of new industries.

User-Driven Enhancement  User-driven enhancements are no-risk improvements or incremental advances to a product. This is equivalent to 3M’s notion of line extensions. Common types of user-driven enhancements include lowering product price; adding low-cost, high-value feature enhancements; and introducing cost-efficient quality improvements. For example, Windows XP is an improved version of Windows 2000.

Developer-Driven Development  Developer-driven developments occur when a firm comes up with a new way to meet an existing consumer need. This corre-
Framework for Market Opportunity Analysis

The goal in performing market opportunity analysis is to identify and assess the attractiveness of business opportunity. Is there an unmet customer need? Is the technology ready to deliver the offering? Does the company have the resources or have access to resources to deliver the offering? Is the competition strong? Is this an attractive opportunity? The outcome of an opportunity analysis should provide answers to these questions.

A “funnel process” is commonly used as a metaphor to describe idea creation—beginning with the generation of a broad input of ideas that are successively filtered through a series of developmental steps and decision gates until only the most promising ideas remain. The decision gates are sets of criteria defined by the firm to ensure that only the most attractive
and appropriate opportunities with the highest probability of success are pursued. The market opportunity analysis framework, which can be thought of as the initial investigative stages of idea creation, includes the following steps:

1. Identify the unmet and/or underserved customer need.
2. Identify the specific customers a company will pursue.
3. Assess advantage relative to competition.
4. Assess the company’s resources to deliver the offering.
5. Assess the market readiness of the technology.
6. Specify the opportunity in concrete terms.
7. Assess opportunity attractiveness.

Exhibit 3.2 illustrates the steps of opportunity analysis that firms should satisfy in order to frame market opportunity. Taken together, these seven steps comprise the scope of a sound process for market opportunity analysis.

Notice that the seven steps revolve around four key environments: customers, company, technology, and competition. Analysis of the customer environment uncovers unmet or underserved customer needs, as well as the market they occupy. Identifying and choosing priority customers lead to a preliminary understanding of the potential audience the company could seek to serve. Analysis of the technology environment reveals the readiness of the particular technology, as well as any alternative technologies, on which the manager anticipates deploying the firm’s offering. The manager must be able to estimate customer readiness to adopt these platforms. Key issues center on the evolution of technology and its adoption. Analysis of the company environment provides the current state of the company’s resources. The manager must know the resources of the firm, as well as its strengths and weaknesses.
The manager must be able to identify the distinct benefits the company would bring to the offering to achieve advantage and win in the market, as well as to expose any missing or weak areas of its resource system. Analysis of the competition should reveal the structure of the industry and market, key competitors in the marketspace, and the firm’s relative advantage to each of the key players. Key players should include industry-level competition as well as competitors that are not in the immediate space but can pose a threat to the firm in its anticipated offering.

Market opportunity analysis is complicated. Oftentimes a customer need exists but there is either a lot of competition or not the right technology to meet the need. Likewise, a company may have the perfect resources to provide a benefit but then realize too late that there is not enough of a customer need for that benefit. Exhibit 3.3 shows a Venn diagram for these four elements that make up the opportunity analysis. Once the seven steps of market opportunity analysis have been performed, a company should ideally pursue the opportunity that falls in the “sweet spot.” This means that there is an unmet customer need, the company has the available resources, competition is weak, and technology is able to deliver the benefit. However, in practice, firms can often only find opportunities near the sweet spot—the technology is not perfect, there is more competition than would be ideal, there is an unmet need but perhaps not a critical unmet need. In these cases, managers must decide whether pursuing the close-to-perfect opportunity is worth the risk.

EXHIBIT 3.3  The Four Key Environments and the “Sweet Spot” for Market Opportunity

Step One: Identify Unmet and/or Underserved Customer Needs

New value creation is based on doing a better job of meeting customer needs. What customer needs will the new business serve? Are these needs currently being met by other companies in the market, and, if so, why will customers choose your business over the competition? The opportunity
analysis framework describes the uncovering of an opportunity nucleus—a set of unmet or underserved needs.

**Customer Decision Process**

The customer decision process is an organizing framework that looks systematically for unmet or underserved needs. This process maps the activities and choices customers make in accessing a specific experience within a value system. Then the process lays out the series of steps: awareness of the experience, the purchase experience, and the use experience. The customer decision process may help generate new ideas about unmet or underserved needs. For example, an examination of the process people go through to buy books might identify that people rely on recommendations from others. Jeff Bezos successfully identified this need and created a function on Amazon whereby customers can read reviews and comments about books while they browse—a service not available to customers in a bricks-and-mortar bookstore.

To discover unmet or underserved needs, senior management should map out the customer decision process. When properly answered, the following questions will help structure that process:

- What are the steps that the typical customer goes through?
- Who gets involved, and what role does he or she play?
- Where does the process take place?
- How much time does the overall process take? How much time is associated with individual steps? Does the customer move through the entire process at once, or does he or she take breaks?
- What choices do customers not consider? What choices are they unaware of?
- Which customers are not participating in this customer decision process for a specific value system?

Exhibit 3.4 illustrates the customer decision process for buying a book. Each process is organized into three broad categories: prepurchase, purchase, and postpurchase. While some of the steps are highly linear and require either/or decisions (e.g., buying the book at a physical store versus buying the book online), other steps require weighing several factors at once (e.g., weighing availability against price and quality). Analyzing which factors are weighed during which process will help a company see how it can help the customer decide on a purchase. This process also shows each step a customer needs to take to become a satisfied and loyal customer of the company.

Of course, not all businesses involve purchases just by users. Access to CNN's website is free to all users but is paid for by advertisers, so the business has two sets of customers. In this case, it is worthwhile developing one customer decision process cycle for visitors and another one for advertisers.

**Reveal Unmet or Underserved Needs**

Having identified the steps in the customer decision process, the management team can look to uncover unmet or underserved needs. The following questions can help identify these needs:

- What is the ideal experience the customer wishes for, both functionally and emotionally? How does it vary step-by-step in the activity?
CHAPTER 3  Market Opportunity Analysis

EXHIBIT 3.4  Consumer Buying Process Tree for Book Purchase

- How closely does the actual experience compare with the customer’s view of the ideal? What are the key frustration points? What compensating behaviors do we observe (i.e., what actions does the customer engage in to overcome these frustrations)?
- Does the experience customers seek vary according to their environment?
- What are customer beliefs and associations about carrying out this activity? How do they view their relative competence and role? How positively or negatively do they view the current set of company offerings?
- What barriers block some or all participation by potential customers?
- What are the online opportunities to enhance or transform the customers’ experience?

Uncovering these needs may be as straightforward as having a conversation with a number of customers, or may be as complex as creating observation opportunities to watch customers in action and identify behaviors of which they may be unaware. Immersion in the customer decision process can be an effective way to reveal opportunities for a better way of doing things.

Step Two: Identify the Specific Customers a Company Will Pursue

So far, we have talked about where a company is likely to play in the value system and how customers go through their decision-making process. Now we will discuss the specific customer segment that the company plans to pursue. What distinguishes must-have customers from nice-to-have customers who are seeking a solution to this unmet need? Companies need to develop a sense for the type(s) of customers they ultimately seek to serve. This understanding allows a company to assess opportunity attractiveness at a high level and to focus on crafting an offering that will best appeal to the target customer.
In analyzing the outcome of the customer decision process, companies are likely to identify subsets of customers with very different patterns of behavior, underlying needs, and behavioral drivers. Segmentation is the process of grouping customers based on their similarities. Once the different segments have been identified, the company must determine the segments (or customers) it will target in order to further refine the type of opportunity the company will seek to capture. Of course, the digital play that a company has in mind may radically change how customers act in this value system. Hence, a company would look for both segments that disproportionately benefit from some change in the status quo and those more predisposed to adopt an entirely new product or service.

**Approaches to Market Segmentation**

There are many approaches to segmentation, and the best way to segment a market is an often debated topic. The best segmentation for the opportunity depends on the value system that the opportunity is centered upon, how the

---

**Empathic Design**

All companies, particularly technology companies, rely on innovation to survive. A natural choice is to rely on customers to tell you how to serve them better. The problem is that customers are particularly bad at doing that. They rarely are able to imagine or describe innovations.

One solution is to use “empathic design,” a set of techniques described by Dorothy Leonard and Jeffrey Rayport in the *Harvard Business Review* article, “Spark Innovation Through Empathic Design.” Two things distinguish empathic design research techniques from those used in traditional market research. First, they are based on observation (watching consumers) rather than inquiry (asking consumers). Second, unlike traditional lab-based usability testing, which typically involves observing consumers using a product in a laboratory, empathic design research is conducted in the environment in which the consumers would commonly use the product.

Empathic design is not a substitute for traditional research, but it can yield the following five types of information that are not ordinarily revealed by traditional techniques:

- **Triggers of use**: What circumstances cause people to use a product?
- **Interactions with the user’s environment**: How does the product fit with users’ idiosyncratic environments and habits?
- **User customization**: Do users redesign the product to fit their needs? If so, how?
- **Intangible product attributes**: Intangible attributes may be important in creating an emotional franchise with the consumer.
- **Unarticulated user needs**: Observation can discover unarticulated user needs that can be easily fulfilled.

Different people notice different things, and the use of a small team with a diverse set of skills (e.g., interface design, product management) may observe otherwise unnoticed subtleties. The team should observe and record a subject’s normal behavior. The team should also take detailed notes and minimize interruptions or interference with the subject. Photographs, videos, and sketches can all help the team record what it finds.

A common criticism of the innovative ideas that can emerge from empathic design is, “But users didn’t ask for that.” This is precisely the point of the exercise. By the time customers ask you for an innovation, they will be asking your competitors, too.
customer can and will make decisions within that value system, and what action a company is likely to take. Exhibit 3.5 provides a comprehensive listing of segmentation approaches that academic literature and textbooks often cite.11

<table>
<thead>
<tr>
<th>Segmentation Type</th>
<th>Description</th>
<th>Examples — Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic</td>
<td>Divides the market into different geographical units</td>
<td>Country, region, city</td>
</tr>
<tr>
<td>Demographic</td>
<td>Divides the market on the basis of demographic variables</td>
<td>Age, gender, income</td>
</tr>
<tr>
<td>Firmographic</td>
<td>Divides the market on the basis of company-specific variables</td>
<td>Number of employees, company size</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Divides the market based on how customers actually buy and use the product</td>
<td>Website loyalty, prior purchases</td>
</tr>
<tr>
<td>Occasion (Situational)</td>
<td>Divides the market based on the situation that leads to a product need, purchase, or use</td>
<td>Routine occasion, special occasion</td>
</tr>
<tr>
<td>Psychographic</td>
<td>Divides the market based on lifestyle and/or personality</td>
<td>Personality (laid back, type A), lifestyle</td>
</tr>
<tr>
<td>Benefits</td>
<td>Divides the market based on benefits or qualities sought from the product</td>
<td>Convenience, economy, quality</td>
</tr>
</tbody>
</table>

EXHIBIT 3.5 Segmentation Approaches

Over time, segmentation has evolved from the use of observable and customer-external variables (age, income, geography) in the 1960s and 1970s to more meaningful customer-internal variables (needs, attitudes) in the 1980s and 1990s. The fact remains that neither is sufficient on its own to fully define a segment. The difficulty comes with selecting the segmentation approach and the variables that most effectively describe and reflect the nature of the opportunity being analyzed.

**Actionable and Meaningful Segmentation**

Unfortunately, most segmentation efforts fail to deliver on the intended objective—to be both useful and insightful. The segments either are often easy to recognize but do not provide much insight into customer motivations (actionable, but not meaningful) or generate real insight about customers but are difficult to address (meaningful, but not actionable). The goal of market segmentation is to identify the intersection or combination of marketplace variables that will generate actionable and meaningful segmentation of customers.
Actionable Segmentation To be actionable, segmentation must be consistent with how a company can go to market, and it must be able to be sized and described. **Actionable segmentation** fulfills the following criteria:

- The segments are easy to identify.
- The segments can be readily reached.
- The segments can be described in terms of their growth, size, profile, and attractiveness.

Meaningful Segmentation To be meaningful, segmentation must help describe and begin to explain why customers currently behave—or are likely to behave—in a specific way. **Meaningful segmentation** fulfills the following criteria:

- Customers within a segment behave similarly, while customers across segments behave in different ways.
- It provides some insight into customers’ motivations.
- It corresponds to the set of barriers customers face when they buy or use a product or service.
- It corresponds with how customers currently (or could) buy or use the product or service.
- It correlates to differences in profitability or cost to serve.
- The segments and/or their differences are large enough to warrant a different set of actions by a company.

**Step Three: Assess Relative Advantage to Competitors**

To assess the competitive advantage the firm may be able to achieve relative to the competition, the manager must understand the context of competition at the industry level and specific competitors at the individual company.
Is Segmentation Obsolete?

Some people have begun to question whether the segmentation concept applies in the online world. Because the online world enables consumers to customize products, services, and information specifically to their needs, the segmentation concept has been reduced to “segments of one.”

Proponents of this notion have given it various labels, including “1:1,” “segment-of-one,” or “one-to-one” marketing. Furthermore, they argue that Web businesses such as eBay often attract an exceptionally wide variety of customers who weigh buying criteria (such as low price, most convenient buying method, best online information and reviews, broadest selection) quite differently. Hence, it is foolish to attempt to cluster these widely divergent groups. Rather, customization enables firms to uniquely meet the needs of each customer. Additionally, they argue that the back-office supply systems and infrastructure can easily accommodate every type of customer. Finally, multiple storefronts—even 1:1 storefronts—can be constructed in a real-time basis. (See Exhibit 5.16 in Chapter 5 for an example of this.)

Conversely, proponents of segmentation argue that all Web storefronts are, by definition, already segmenting the market. That is, if a given Web storefront simultaneously attracts selected customers and repels certain customers, it is segmenting the market. By disregarding these segments and focusing exclusively on 1:1 marketing, the company would miss the fundamental economics of which particular class of customer is most profitable or least profitable. For example, Dell requires its online customers to segment themselves into “consumer,” “business,” or “public” categories, then offers business users (and large-business users in particular) such perks as customized portals and “don’t call us, we’ll call you” sales rep service.

level. Competitive advantage is based on the customer value a firm creates that exceeds the firm’s cost to produce that value. In his book *Competitive Strategy*, Michael Porter defines two basic types of competitive advantage: cost leadership and differentiation.\(^\text{12}\) Value is not determined by the firm but rather by buyers, in the amounts they are willing to pay. Firms can create value by offering lower prices than competitors for the same benefits or by providing unique benefits that more than offset the higher price.

To measure relative advantage, a company obviously needs to identify the competitors it will face. The manager must understand individual competitor offerings, the reasons they do or do not offer the solution to the unmet customer need, and the reasons they can or cannot replicate the offering the firm intends to present. In the discussion of value systems, a company’s key competitors would have been identified, and white-space opportunities (those in which there is no apparent competition) would have been isolated. At this stage, the task is to develop a better understanding of the threats and opportunities associated with various participants.

Identifying online competitors is both easier and more difficult than identifying offline competitors. On the one hand, the firm can simply use search engines to begin identifying competitors (although generic searches may deliver thousands of relevant pages), then visit the websites of these potential competitors to gain an understanding of their offerings. On the other hand, competition in the marketspace typically cuts across traditional industry boundaries. No matter what online business you are in, there is a good chance that either Microsoft or AOL Time Warner (or both) are your competitors.
In the online world, companies that one would not consider direct competitors (a company offering a similar or competing product) can become indirect competitors because they are reaching and attracting the same customers, or because they are developing a technology, platform, or offering that might compete with your offering. In other words, direct competitors are rivals in the same industry. Porter defines these firms as offering products or services that are “close substitutes” for each other. Indirect competitors include two categories of companies:

- **Substitute producers.** Porter defines substitute producers as companies that, though they reside in different industries, produce products and services that “perform the same function.” Keen.com and Britannica.com are substitute producers. Keen.com is a switchboard that connects people with questions to individuals who can answer them knowledgeably. Britannica.com offers answers to a wide range of questions through its online encyclopedia.

- **Adjacent competitors.** Adjacent competitors do not currently offer products and services that are direct substitutes, but they have the potential to quickly do so. For example, adjacent competitors may have a relationship with a company’s current customers.

A useful tool for identifying direct and indirect competitors is the profiling approach in Exhibit 3.6, which maps the different competitors in the picture-taking industry. Kodak is one of the only companies that competes along the entire spectrum of the picture-taking process. Most of its competitors provide either physical products for the initial steps of the process (providing cameras and film) or the service steps of picture taking (providing services to manipulate images, processing and developing services, and the ability to share photos). Although Kodak is one of the only companies to provide both physical goods and services for the picture-taking process, it does not integrate

---

**MarketSpace Interview**

**Jeff Hawkins, Inventor of the PalmPilot; founder Palm Inc. and Handspring**

The Newton [Apple’s early, unsuccessful handheld computer, introduced in 1993] was a real watershed event in this industry. It got tremendous publicity and tremendous ridicule. But at Palm, we went out and asked the people who bought the Newton, “Why did you buy this? You may not like it, but you must have expected it to do something.” The technology pundits would say, well, it’s supposed to be an intelligent agent, a communicator, talk to wireless. . . . But the users said, “I just wanted to organize my life.” They would show me their paper organizer and they’d say, “I just can’t keep my addresses; they’re always getting out of order. And I can’t keep coordinated with my secretary. I was hoping somehow this thing would just help me organize my life!”

So we began to realize that our competition wasn’t technology or computers; our competition, the system we were trying to improve on, was paper. We looked at how people used paper organizers and we said, that’s what we have to be better than. And paper’s pretty good: It’s fast, it’s cheap, it’s reliable. So we actually studied people doing things with paper—things like how long does it take to look up a name? How do people enter things? And where do they want to carry it? And in the end, those studies produced many of the design concepts that went into the original PalmPilot.
these resources to compete. Kodak produces the film, cameras, paper, and printers, while its Ofoto website provides the online processing services. Therefore, Kodak uses the same playing field to compete against other companies.

**EXHIBIT 3.6 Competitor Profiling for Kodak**

**Competitor Mapping to Selected Segments**

Current and prospective competitors can significantly shape the nature of a company's online opportunity. In previous steps, we identified the customer segments that the company wants to target and the competitors (direct and indirect) that a company may face. To assess competitive intensity, we need to map the competitors to the target segments. In other words, we need to map out where current competitor companies are participating and determine their effectiveness in delivering benefits to our target customers. This analysis will help the company do the following:

- Demarcate underserved areas in the market, as well as the most competitive areas.
- Identify the companies it will compete against, and gain preliminary understanding of their strengths.
- Spot companies that could be potential collaborators—in other words, companies that might offer a critical capability or unique access to customers at a specific stage of the customer decision process.
The competitor mapping of segments can also be used to record the relative strengths and weaknesses of current competitors and their offerings at each relevant cell in the map. Ultimately, the customer seeks specific benefits. Assessing the current players’ performance in meeting the customer standard will provide an indication of the potential for a company to move in and win. Understanding current competitor capabilities will also give a sense of the height of the competitive hurdles a company may face in its selected space.

Exhibit 3.7 illustrates a mapping of Kodak’s competitors to three segments. Kodak is a clear leader among cost-conscious consumers and middle-income families with children. Kodak provides inexpensive disposable cameras, along with low-end film and digital cameras that would appeal to those who want to take pictures but do not want to spend too much money doing so. Kodak appeals to middle-income families by supplying midline cameras and services that are easy to use and that allow families to take pictures of children and vacations, get them processed, and share them with grandparents. High-income, tech-savvy consumers, however, would probably only use Kodak for film or processing; they would likely buy more expensive cameras and printers that would allow them more options and better quality. If Kodak were to decide to pursue the higher-income bracket, it would have to either change its offerings or partner with another company in order to provide that segment with the benefits it wants.

<table>
<thead>
<tr>
<th>Target Segments</th>
<th>Kodak</th>
<th>Canon</th>
<th>Snapfish</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost-Conscious</strong></td>
<td>• Disposable cameras</td>
<td>• Limited low-end cameras</td>
<td>• Deals on services</td>
</tr>
<tr>
<td></td>
<td>• Low-end film and digital cameras</td>
<td>• No services</td>
<td>• No products</td>
</tr>
<tr>
<td></td>
<td>• No deals on developing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Middle-Income Families with Children</strong></td>
<td>• Midline cameras</td>
<td>• Mid-range cameras</td>
<td>• Services—developing, sharing, gift cards</td>
</tr>
<tr>
<td></td>
<td>• Film</td>
<td>• No services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Photo services; developing, sharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High-Income/Tech Savvy</strong></td>
<td>• High-quality accessories (film, paper, CDs)</td>
<td>• High-tech products</td>
<td>• Services, though limited</td>
</tr>
<tr>
<td></td>
<td>• Products are less sophisticated</td>
<td>• Software</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Printers—consumers don’t need to process</td>
<td></td>
</tr>
</tbody>
</table>

EXHIBIT 3.7 Competitor Mapping to Selected Segments for Kodak

Step Four: Assess the Resources of the Company to Deliver the Offering

At this stage, the company should stake out what experience and benefits the offering will provide and what resources and technology will be needed to deliver the benefits of the offering. While the offering and the means to deliver its benefits will be revisited and refined many times, these details will
play a vital part in influencing and determining the company’s rationale for success in this endeavor.

**Company Resources**

Before spending a great deal of time crafting a specific business model to support a concept, the management team should assess whether or not it can identify at least three or four resources or assets that it can leverage successfully into the selected online space. These resources should be central to delivering new benefits or unlocking trapped value—the core of the company’s value story. These resources should also hold the promise for advantage, considering the current and prospective players in the targeted space. With three or four such resources, the management team will have the beginnings of a robust business.

In this step, the team will already have a strong understanding of the following:

- The selected value system in which the company will be participating
- The key stages of the target’s customer decision process and the benefits sought/value trapped at each stage
- The target customer segments

Looking across these insights, the management team should identify which winning resources it can create or provide through business partnerships. In Chapter 4, we introduce an analytical tool that we call the resource system; this is a useful framework for assessing the new business’s resources. A resource system is a discrete collection of individual and organizational activities and assets that, taken together, create organizational capabilities that allow the company to serve customer needs. Resources that a company can bring to bear can be classified into the following three groupings:

- **Customer-facing.** Customer-facing resources include brand name, a well-trained salesforce, and multiple distribution channels.
- **Internal.** These resources are associated with the company’s internal operations. Examples include technology, product development, economies of scale, and experienced staff.
- **Upstream.** These resources are associated with a company’s relationship to its suppliers. Examples include partnerships with suppliers and the degree of operational seamlessness between the company and its suppliers.

**Partners**

On its own, a company may not be able to bring to bear all of the resources necessary to deliver value to its target segments. In opportunity assessment, a company must be realistic about any capability gaps. If a gap is insurmountable, the company should not proceed; if the gaps can somehow be closed, then a company must find a way to do so. Partnering may be an effective alternative to building or acquiring the capability. Online businesses find partnerships particularly relevant because their offerings span traditional value-system boundaries. In fact, effective partnering can be an important source of advantage. For example, AOL uses only Associated Press content for its online news alerts. Yahoo.com uses AP, Reuters, OneWorld.net, AP Features, and NPR for its world news coverage and Reuters, CNET, AP, Internet Report, ZDNet,
TechWeb, USA Today, NewsFactor, and MacCentral for its technology news. The potential partners for a company can be grouped into two categories: complementary partners and traditional, or capability, partners.

**Complementary Partners** These partners provide offerings that are complementary to those of another company. For example, Intel is complementary to Microsoft. Also, an increase in the sales of a complementary offering is likely to lead to an increase in the partner company’s sales. For example, a boost in the sale of Intel’s Pentium processor is likely to lead to an increase in Microsoft Windows-based software sales and vice versa.

**Capability Partners** Capability partners give and receive value from partnering with another company. Combining the benefits to be delivered with the way in which the company will deliver them fills in the business concept. With this high-level business concept in mind, we can assess the attractiveness of the opportunity from financial, technical, and competitive points of view. In Chapter 4, we consider in greater detail how the company can determine what capabilities it needs to develop and how to develop them.

**Step Five: Assess Market Readiness of Technology**

**Technology Vulnerability**

Beyond the competitive and customer arenas, the company must make a high-level judgment about the opportunity’s vulnerability to technology trends, both in the penetration of enabling technologies and in the effect of new technologies on the value proposition.

**Technology Adoption** The management team must also make a high-level judgment on technology transfer and the rate of adoption of relevant technologies. Is there sufficient penetration of the technologies (e.g., cable or DSL modems, scanners) that enables the customer to take advantage of or participate in the offering? What penetration is necessary to make the offering financially viable? When is the minimum penetration likely to be met? Is there an introductory version that could be upgraded as technology penetration increases?

**Impact of New Technologies** What new technologies could radically alter the economics of delivering an offering or require adjustment of the actual features and functionality of an offering? How likely is it that your target population or competitors will use these technologies?

The pace and discontinuity of technological change make forecasting the future particularly challenging, and it is not our intent to provide an exhaustive treatment of the subject here. Fortunately, several rules of thumb about technological development can guide entrepreneurs. Moore’s Law forecasts that the processing power of successive generations of microchips will double every 1.5 years. Our definition of what a computer is will probably also change. Soon, every device will be a computer. Many believe these devices will all be connected by a vastly larger Internet. George Gilder, a technology forecaster who has given his name to Gilder’s Law, predicts that total bandwidth of communications systems will triple every 12 months for
the foreseeable future. The challenge for entrepreneurs is to understand what these macro-trends will mean for their proposed businesses.

**Step Six: Specify the Opportunity in Concrete Terms**

At this point, the management team should have a clear picture of the market opportunity. Its members should be able to describe the value system for the industry and have a strong sense of how intervention into this value system and the customer decision process could create new benefits, enhance existing ones, or unlock value trapped in the current system. The team should be able to clearly identify the customer segments that it will be targeting and support its determination with data or strong hypotheses about the underserved or unmet needs of one or more of these customer segments. This understanding provides the basis for creating a high-level value proposition and determining capabilities that the team can bring to bear to participate successfully in the business. The examination of potential competitors enhances the team’s thinking about where to participate in the identified market and what to bring to the opportunity.

To specify the opportunity in concrete terms, the management team should craft an **opportunity story**—in essence, the first rough outline of the business plan. The opportunity story should:

- Briefly describe the target segment(s) within the selected value system.
- Articulate the high-level value proposition.
- Spell out the expected elements of customer benefits (we largely focused on functional benefits in this chapter; however, needs can be emotional or self-expressive).
- Identify the critical capabilities and resources needed to deliver the customer benefits.
- Lay out the critical “reasons to believe” that the identified capabilities and resources will be a source of relative advantage over the competition.
- Categorize the critical capabilities (and supporting resources) as in-house, build, buy, or collaborate.
- Describe how the company will monetize the opportunity (i.e., how it will capture some portion of the value that it creates for its customers).
- Provide an initial sense of the magnitude of the financial opportunity for the company.

If there is uncertainty about one or more of the gating questions, the management team must judge whether additional analysis would remove the uncertainty. The team should not proceed too far down the path toward business-model development if members cannot reach a consensus on passing these initial gates.

**Step Seven: Assess Opportunity Attractiveness**

At this point, the management team should have a clear picture of the market opportunity. Its members should be able to describe the value system for the industry. They should also have a strong sense for how intervention into
this value system and the customer decision process could provide exceptional value to the customer by creating new benefits, enhancing existing ones, or unlocking value trapped in the current system. The team should be able to clearly identify its customer segments and support its determination with data or well-tested hypotheses about the underserved or unmet needs of one or more of these customer segments. Relevant technologies should be identified, along with an educated estimate of their developmental and adoption time lines. The team should also be able to articulate compelling reasons why the identified capabilities and resources will be a source of relative advantage over the competition. This understanding provides the basis for creating a high-level value proposition and determining capabilities that the team can bring to bear to participate successfully in the business. The examination of potential competitors enhances the team’s thinking about where to participate in the identified market and what to bring to the opportunity.

There is little point in targeting a new business concept in general, or a meaningful and easy-to-reach segment specifically, if the opportunity is not attractive. The attractiveness of an opportunity is based on a performance estimate of long-term profitability in the particular industry, as well as the firm’s relative competitive position within that industry. The manager can determine the character and magnitude of the opportunity through examining the following:

- Level of unmet need and the magnitude of unconstrained opportunity
- Level of interaction between major customer segments
- Likely rate of growth
- Size/volume of the market
- Level of profitability

Once we have identified the unmet customer need, assessed market readiness of technology, analyzed the resources to deliver the benefits of the offering, assessed relative advantage, and crafted the opportunity story, we next need to turn our attention to customer and market dynamics. When analyzing customer and market dynamics, five central factors must be considered: unconstrained opportunity, segment interaction, growth rate, market size, and profitability.

**Unconstrained Opportunity**
This is the amount of white space that is still apparent in the marketplace. Markets with a high degree of trapped or relatively untapped new-to-the-world value are particularly prized. Note the explosive growth of eBay in the online auction space. The number of goods that individuals wanted to buy and sell, combined with the relatively arcane auction system in which they found themselves trading, signaled a massive opportunity.

**Segment Interaction**
This level of reinforcing activity generates more purchase and usage. Companies that have member-influencing-member dynamics—in other words, viral dynamics—can quickly capture much of the opportunity. For example, through its self-serve customer feedback offering Zoomerang.com, MarketTools created a geometric viral effect. Each member can send a
customer feedback survey to 30 customers, who in turn decide whether to write their own survey and send it to 30 of their customers, and so on.

Growth Rate
Growth rate refers to the percentage of annual growth of the underlying customer market. Markets with expected high growth represent significant opportunities for players. Typically, opportunities with estimated annual growth rates of 30 to 50 percent or greater are highly attractive, while those with declining or negative growth (less than 10 percent) are considered unattractive.

Market Size
This is the dollar value of all of the sales generated in a particular market. Opportunities with a large market size are very attractive, since winning even a small piece of the pie may correspond to a significant revenue flow. For example, a large number of competitors in the online pet-products industry emerged in response to the huge size of the pet food and supplies market, estimated at $23 billion. Despite this large market, many of the entrants (e.g., Petopia.com and Pets.com) were unable to create successful businesses.

Profitability
This is the profit margin that can be realized in the market. Markets with high profit margins are highly attractive because they can generate high levels of profit with moderate sales volume. For example, eBay’s auction market provides a highly attractive opportunity in part because it generates profit margins of nearly 80 percent.

An important aspect of the assessment of market size and profitability is determining how the company will generate revenue. What are the opportunities for monetizing the value creation? Consider typical sources of revenue in the networked economy—advertising, referrals, affiliate-program fees, customer subscriptions, and the purchase of products and services.

Overall Opportunity Assessment
To assess the overall attractiveness of the opportunity, managers must not only rate each factor separately but also rate them together. Whether a particular factor helps or hinders the overall market opportunity (or does not have an effect on it at all), the manager must try to gauge the magnitude of its impact. It is important to look across all factors (technology and competition as well as the customer and market factors mentioned above) to see the overall effect, because these effects may be multiplicative and not additive. Each company must decide how to evaluate the opportunity. Exhibit 3.8 shows how Priceline.com’s management team might have looked at its opportunity when the company was first conceived.

The team now must decide whether or not it is ready to define the specific value proposition and design a business model. This should be the first of several go/no-go decision gates. If it has not already done so, the team should define the criteria to be met before proceeding to the next step of the business development process.
Let us now apply the market opportunity framework to MarketWatch.com. To best illustrate the framework, we turn the clock back to the early months of 2000. At that time, MarketWatch.com saw a chance to capture considerable market share and to position itself alongside the most respected online business and financial news providers. With that belief came a significant challenge: Which opportunities should be pursued, and which should be ignored? If management made the right decisions, it would be rewarded for its acumen with increased visitors as well as advertising and licensing revenue. If not, it would have to struggle for continued viability.

Step One

The first step in the market opportunity framework is to identify unmet or underserved customer needs. To do this, MarketWatch.com needed to have a clear understanding at a basic level of who its customers were. A look at its value system highlighted three sets of customers. The first and largest segment was people seeking financial and business news who had a distinct interest in global financial markets. The second segment was advertisers seeking additional and more effective venues to promote their products and services online. The final segment was licensees—companies looking to augment their products and services with financial news and information from third-party providers instead of building those capabilities internally.

With this understanding of its customers, MarketWatch.com could go through the customer decision process for each of these three customer segments. Exhibit 3.9 illustrates the customer decision process for the consumer segment and highlights its unmet and underserved needs. At the most basic level, individuals came to MarketWatch.com to keep abreast of financial markets and business news, track financial markets, and get a moderate level of
analysis and commentary from respected industry sources. More involved individuals had deeper interests in financial markets and desired to learn more about investing, develop personal investing strategies, and execute against them. After outlining the customer decision process for its advertising and licensee customers as well, MarketWatch.com could come up with a list of unmet or underserved needs similar to those in Exhibit 3.10.

The customer decision process reveals three sets of interconnected unmet and underserved needs.

**Licensee Needs**
- Brand-name content
- Modularized content
- Seamless integration
- Reliable delivery

**Advertiser Needs**
- Highly trafficked site
- Attractive demographics
- Broad ad placement options
- Multiple ad formats (e.g., banners, audio, video)
- Measurable results

**Individual Needs**
- High-quality reliable reporting
- Focused reporting with moderate depth
- Timely market information
- Pleasing user experience

**EXHIBIT 3.10 MarketWatch.com's Customers and Needs**
Step Two

The next step in the framework is to identify the specific customers to pursue. MarketWatch.com segmented each of its three customer types to identify actionable and meaningful segments within each. An expanded line of products and a strong and continuous commitment to world-class service were important goals for MarketWatch.com. However, its continued viability depended on its ability to monetize that audience, putting particular pressure on revenue-generating activities. With this pressure in mind, we look at MarketWatch.com’s segmentation of its licensing customers.

MarketWatch.com wanted to expand its existing relationships with its core clients while broadening its list of new ones. It determined that these new clients needed to be consumers and distributors of financial information with complementary online offerings and deep pockets—they needed to be able to pay for MarketWatch.com’s various content products, including company research, insider-trading data, and a full suite of mutual-fund data. The types of firms that fit this actionable and meaningful segment were leading brokerages, diversified financial institutions, and financial publishers looking to improve their online offerings to increase market share in a down economy. A sampling of MarketWatch.com’s targeted companies is displayed in Exhibit 3.11.

<table>
<thead>
<tr>
<th>Licensing Segments</th>
<th>Targeted Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brokerages</td>
<td>Ameritrade, Datek, E*Trade</td>
</tr>
<tr>
<td>Diversified Financial Institutions</td>
<td>Charles Schwab, Morgan Stanley, UBS PaineWebber</td>
</tr>
</tbody>
</table>

EXHIBIT 3.11 MarketWatch.com Licensing Segments

Step Three

The third step in the market opportunity framework is to assess the company’s advantage relative to its competitors. Three main dimensions that were meaningful given MarketWatch.com’s customer segments were its reporting, technology, and branding. Exhibit 3.12 maps MarketWatch.com against three of its most successful competitors: Yahoo Finance, MSN Money, and CNNfn. MarketWatch.com held a competitive advantage in the reporting dimension
due to the strength of its in-house reporters, as well as its close relationship with CBS and its ability to leverage CBS’s reporting resources and outlets.

While Yahoo Finance provided a wealth of financial information, it lacked the analysis component that was MarketWatch.com’s strength. The technology dimension was led by Yahoo Finance and MSN Money. Both sites were able to leverage significant resources based on their early entry in the online space and their general expertise in technology. In branding, MarketWatch.com benefited greatly from its association with CBS and the subsequent use of its logo and name on TV and the radio. However, Yahoo was perhaps the most widely recognized online brand in the world, and Microsoft had the deepest pockets of anyone competing in the online financial news space. Both proved formidable to competitors in the branding arena.

**Step Four**

The fourth step in the market opportunity framework is to assess the company’s resources to deliver the offering. MarketWatch.com’s primary customer-facing resource was its brand name and association with CBS. “CBS MarketWatch.com” was seen on TV and in print and was heard on the radio by millions of people each day. Virtually no other competitor (perhaps excluding MSN Money, with Microsoft’s near-limitless financial backing) could begin to realize that kind of brand exposure. MarketWatch.com’s strongest internal asset was its corps of in-house writers. This gave it the ability to generate value-added analysis and commentary in addition to more standard and commoditized features such as stock quotes and market data. Finally, MarketWatch.com’s upstream resources included both its access to CBS news outlets and its reporting resources. It was able to tap into these resources to expand the reach and breadth of its content. Its other main upstream resource was its existing relationships with its core financial institution clients.
Step Five
The next step for MarketWatch.com was to assess the market readiness of technology. On the consumer side, MarketWatch.com needed to focus on low-bandwidth services. With the majority of households still accessing the Internet through dial-up connections, and with broadband used primarily by early adopters, investments in streaming video and other broadband-friendly services had to wait for more widespread adoption. There were, however, more technology demands on the revenue-generating side of MarketWatch.com’s business. Its advertisers were increasingly more receptive to alternative online advertising placements. Response rates to the traditional banner ad were approaching 1 percent, abysmal compared to a few years earlier. More attractive options included the ability to incorporate motion and sound into their ads, the ability to place ads within the body of articles or as interstitials (ads that would appear on the entire screen before an article would appear), and the ability to sponsor whole sections of the site. Each of these alternatives required MarketWatch.com to invest in the technology that would make them possible.

Finally, licensing introduced an entirely different set of technology demands. Licensees needed modularized content that could be seamlessly integrated into their sites. This required a whole suite of tools that MarketWatch.com had already invested in. MarketWatch.com needed to ensure that its technology could scale with increased licensing demands as this side of the business grew.

Step Six
The next step is to specify the opportunity in concrete terms. This involves creating the opportunity story for MarketWatch.com—a series of gating questions that would provide a rough outline of the business plan. Exhibit 3.13 illustrates MarketWatch.com’s opportunity story. It outlines the benefits, needed resources, and size of the opportunity for MarketWatch.com’s three target segments: consumers, advertisers, and licensees. To summarize the opportunity, MarketWatch.com needed to continue to deliver high-value content to affluent seekers of financial and investing news, and monetize that content through the effective use of advertising placements and the creation and selling of a broad suite of content modules to licensing partners.

Step Seven
The last step in the framework is to assess the attractiveness of the opportunity. Competitive intensity is just one of the seven factors to be considered when determining how attractive the opportunity was for MarketWatch.com in the early months of 2000. Exhibit 3.14 shows these factors and their effect on the opportunity attractiveness. Competitive vulnerability was a negative factor, given the intensity of the competition. The magnitude of unmet needs was a neutral factor, since many of the basic user needs were addressed—though there was room for more effective tools and more insightful analysis. The likely growth rate of the MarketWatch.com target segments and the potential size of the market (in terms of both advertising
and content licensing) were very high—both positive factors in assessing the opportunity. The combination of these factors led to an attractive opportunity for MarketWatch.com, while at the same time signaling the need to closely monitor competitor moves.

### The MarketWatch.com Opportunity Story

<table>
<thead>
<tr>
<th>Target Segment</th>
<th>Value Proposition</th>
<th>Customer Benefits</th>
<th>Critical Resources</th>
<th>Reasons to Believe</th>
<th>Resource Sourcing</th>
<th>How to Monetize</th>
<th>Opportunity Magnitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer</td>
<td>Affluent seekers of financial news and investing</td>
<td>Highest-quality reporting Broad set of investing tools</td>
<td>One-stop shopping for financial news needs</td>
<td>In-house reporting team CBS</td>
<td>Expensive-to-duplicate writing team Only one CBS</td>
<td>Reporters in-house CBS</td>
<td>Large target audience critical for advertising success</td>
</tr>
<tr>
<td>Advertiser</td>
<td>Auto Brokers Consumer products</td>
<td>Highly attractive audience Effective placements</td>
<td>Improved results of online advertising campaigns</td>
<td>Sophisticated publishing platform Strong sales team</td>
<td>Table stakes for continued survival</td>
<td>In-house</td>
<td>Enhanced placements and formats</td>
</tr>
<tr>
<td>Licensee</td>
<td>Brokers Financial institutions and publishers</td>
<td>Broad suite of products to complement own offerings</td>
<td>Broadened offerings on own site at reduced cost</td>
<td>Sophisticated publishing platform and delivery tools</td>
<td>Table stakes for continued survival</td>
<td>In-house</td>
<td>Develop and support multiple content modules to license</td>
</tr>
</tbody>
</table>

**EXHIBIT 3.13** MarketWatch.com Opportunity Story

**EXHIBIT 3.14** MarketWatch.com Opportunity Assessment
1. Is market opportunity analysis unique for online firms?

The networked economy has affected market opportunity analysis in five main ways:
   a. Networked-economy competition occurs across industry boundaries rather than within industry boundaries.
   b. Competition occurs between alliances of companies rather than between individual companies.
   c. Competitive developments and responses are occurring at unprecedented speed.
   d. Consumer behavior is still in the early stages of being defined, making it easier to influence and change.
   e. Industry value chains or value systems are rapidly being reconfigured.

2. What are the two generic value types?

A firm is looking for either trapped value to be liberated or new-to-the-world value to be introduced. Firms should look at the value system as a lens that yields ideas about new business possibilities.

3. What is the framework for market opportunity analysis?

The framework for market opportunity analysis can be thought of as the initial investigative stage of the funnel process of innovation that includes the following steps:
   a. Identify the unmet customer need.
   b. Identify the specific customers a company will pursue.
   c. Assess market readiness of technology.
   d. Assess the resources to deliver the benefits of the offering.
   e. Assess relative advantage.
   f. Specify opportunity in concrete terms.
   g. Assess opportunity attractiveness.

4. How do you identify unmet and/or underserved needs?

Identifying unmet and/or underserved needs requires managers to examine four key environments for opportunity analysis: customer, technology, company, and competition. The intersection of these four key environments forms the “sweet spot” for e-business innovation where an appropriate configuration of customer segment, technology platform, company resource system, and competitive advantage can create a sustainable business that provides uncommon customer value and entry into a new cycle of increased customer convenience, productivity, and satisfaction.

The customer decision process is an organizing framework that helps a company look systematically for unmet or underserved needs. The process maps the activities and the choices customers make in accessing a specific experience within a value system. The customer decision process lays out a series of steps, from awareness of the experience to the purchase experience and finally the use experience. The process of mapping the customer decision process may help in generating new ideas about unmet or underserved needs.

5. How does a company identify the specific customers it will pursue?

To be effective and efficient, it is essential for a company to know which customer groups are most attractive, which groups it should pursue, which groups it should de-emphasize, and what offerings to present to which target segment. Customer segmentation, or the grouping of similar customers in order to better serve their needs, must be both actionable (consistent with how the company can take action in the market) and meaningful (correlating to differences in how customers will behave). Profiling the segments will identify where the money is, how well competitors serve the segments, and where underserved customers reside.

6. How do you assess advantage relative to competitors?

To assess relative advantage, the manager must understand the context of competition at the industry level and specific competitors at the individual company level. Competitive advantage is based on the customer value a firm creates that exceeds the firm’s cost to produce that value. There are two basic types of competitive
advantage: cost leadership and differentiation. Value is not determined by the firm but rather by buyers in the amounts they are willing to pay. Firms can create value by offering lower prices than competitors for the same benefits or by providing unique benefits that more than offset the higher price.

In the online world, companies that one would not consider direct competitors can become indirect competitors. Porter defines these firms as offering products or services that are “close substitutes” for each other. Indirect competitors include two categories of companies: substitute producers and adjacent competitors.

The competitor mapping of segments can also be used to record the relative strengths and weaknesses of current competitors and their offerings at each relevant cell in the map. Ultimately, the customer seeks specific benefits. Assessing the current player performance in meeting the customer standard will provide an indication of the potential for a company to move in and win. Understanding current competitor capabilities will also give a sense of the height of competitive hurdles a company may face in its selected space.

7. What resources does the company need in order to deliver the benefits of the offering?

After the initial customer focus of the business is determined, the company should stake out the capabilities and technology needed to deliver the benefits of the offering. The management team should identify at least three or four assets of a winning resource system that it can create or provide through business partnerships. This resource system is central to delivering new benefits or unlocking trapped value—the core of the company’s value story—and should hold the promise for an advantage when compared with current and prospective players in the targeted marketspace. A resource system is a discrete collection of individual and company activities and assets that, when combined, create organizational capabilities. These capabilities allow the company to serve customer needs.

On its own, a company may not be able to offer all the necessary resources to deliver value to its target segments. In opportunity assessment, a company must be realistic about any capability gaps. Partnering may be an effective alternative to building or acquiring the capability. The potential partners for a company can be grouped into two categories—complementary and capability partners.

8. How do you assess the readiness of the technology needed to deliver an offering?

The company must make a high-level judgment on the opportunity’s vulnerability to technology trends, both in the penetration of enabling technologies and in the effect of new technologies on the value proposition. The management team must also make a high-level judgment on technology transfer and the rate of adoption of relevant technologies to estimate the penetration necessary to make the offering financially viable.

Several rules of thumb about technological development can guide entrepreneurs. Moore’s Law forecasts that the processing power of successive generations of microchips will double every 18 months. Gilder’s Law predicts that total bandwidth of communications systems will triple every 12 months for the foreseeable future. The challenge for entrepreneurs is to understand what these macro-trends will mean for their proposed businesses.

9. How do you specify opportunity in concrete terms?

The management team can compose an opportunity story, which can be thought of as the first draft of a business plan. The story should articulate the value proposition and the target customers. It should demonstrate the benefits to these customers and the way in which the company will monetize the opportunity. It should estimate the financial magnitude of the opportunity, identify the key capabilities and resources, and, finally, discuss the reasons to believe. In other words, the story should tell why the company’s capabilities will create a competitive advantage for the new business in serving its target customers.

10. How do you assess the attractiveness of an opportunity?

The attractiveness of an opportunity is based on a performance estimate of long-term profitability in the particular industry, as well as the firm’s relative competitive position within that industry. The manager can determine the character and magnitude of the opportunity by examining the following:
   a. Level of unmet need and the magnitude of unconstrained opportunity
   b. Level of interaction between major customer segments
   c. Likely rate of growth
d. Size/volume of the market

An important aspect of the assessment of market size and profitability is determining how the company will generate revenue. Consider typical sources of revenue in the networked economy—advertising revenue, referrals, affiliate-program fees, customer subscriptions, and the purchase of products and services.

To assess the overall opportunity attractiveness, managers must not only rate each factor separately but also rate them together. Whether a particular factor helps or hinders the overall market opportunity, or is neutral, the manager must try to gauge the magnitude of its impact. It is important to look across all factors to see the overall effect, because they might be multiplicative rather than additive.

1. Visit an e-commerce website. Search the Web for competitors in the industry and market. Describe the market space of the company’s industry, the size of the market, its growth rate, and the company’s market share. Describe the customer need the company is trying to satisfy, the specific customers the company is pursuing, the technology and resources likely needed to deliver the benefits of the company’s offering, the revenue model, the company’s key competitors, the basis of the company’s relative advantage, and the company’s strategy.

2. Visit the four legal online music services: FullAudio’s MusicNow (www.fullaudio.com), Listen.com’s Rhapsody (www.listen.com), MusicNet (www.musicnet.com), and pressplay (www.pressplay.com). Compare and contrast the services by describing the customer need each company is trying to satisfy, the specific customers each company is pursuing, the technology and resources likely needed to deliver the benefits of each company’s offering, each company’s pricing and revenue model, the basis of each company’s relative advantage, and each company’s strategy.

3. Suppose that you are about to enter either the marketspace of Exercise 1 or the music marketspace of Exercise 2 as a new competitor. Use the market opportunity analysis framework to determine the attractiveness of your top three market opportunities.

---

**Key Terms**

- marketplace
- co-opetition
- value chain
- value system
- trapped value
- new-to-the-world value
- innovation
- market opportunity analysis framework
- four key environments
- opportunity nucleus
- customer decision process
- segmentation
- actionable segmentation
- meaningful segmentation
- direct competitors
- indirect competitors
- the offering
- resource system
- opportunity story

---

2. All stock prices at closing on April 26, 2002: Amazon at 16.91, which is 4.02 percent of historical high—High 402.25 on 4/23/1999; Autobytel at 3.53, which is 8.45 percent of historical high—High 41.88 on 3/3/1999; Drugstore.com at 2.29, which is 3.39 percent of historical high—High 67.5 on 8/27/1999; iVillage at 1.80, which is 1.58 percent of historical high—High 113.75 on 4/12/1999; Marketwatch.com at 5.01, which is 5.14 percent of historical high—High 97.5 on 4/15/1999; and TheStreet.com at 3.25, which is 5.42 percent of historical high—High 60 on 5/11/1999.
CHAPTER 3  Market Opportunity Analysis

10 This sidebar is summarized from the following article: Dorothy Leonard and Jeffrey F. Rayport, “Spark Innovation Through Empathic Design,” Harvard Business Review 75, no. 6 (November–December 1997): 102–13.
12 Porter, Competitive Strategy, 5.
13 Ibid.
14 Ibid., 23.