1

The Case for Market-Driven Product Definition

The Universal Problem

Midway through her adventures in Wonderland, Alice asked the Cheshire Cat which way she ought to go.

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where—" said Alice.

"Then it doesn't matter which way you go," said the Cat.

"—so long as I get SOMEWHERE," Alice added as an explanation.

"Oh, you're sure to do that," said the Cat, "if you only walk long enough."

—*From* Alice's Adventures in Wonderland, *by Lewis Carroll*

The landscape of unsuccessful product developments is littered with the remains of seemingly clever ideas that never quite made it. This certainly is not a new phenomenon, and it has been a dominant concern of business executives for decades. We can learn a lot from history, but unfortunately many companies have not taken those lessons to heart, or don't have the tools at hand to do so. The failure of Ford Motor Company's

Edsel, for example, has become a part of business and cultural lore. Looking deeper into the reasons behind that failure offers valuable lessons for students of a customer-centric product definition process.

THE EDSEL VS. THE MUSTANG

Since the development and introduction of the Edsel on September 4, 1957, the word *Edsel* has become synonymous with failure. The sales goal for model year 1958 was set at 200,000 cars. In July of 1957, full-scale production of the Edsel began. On November 30, 1957, Henry Ford II told Edsel dealers, "Gentlemen, the Edsel is here to stay." In January of 1958, Ford formed the Mercury-Edsel-Lincoln Division. That year, the company delivered 63,110 Edsels, falling short of its sales goal by more than 68 percent.

The Edsel had many features that were innovative for the time and that have since become standard, such as self-adjusting brakes, an electronic hood release, and the ability to lock the transmission in park until the ignition is engaged. However, these features did not add up to a car that buyers wanted. The Edsel's styling, while unique, failed to appeal to a substantial number of potential buyers.

Ford's decision to highlight the Edsel's powerful engine during a period when the buying public was gravitating toward smaller, more fuel-efficient cars alienated potential customers. The first models in the showroom were the most expensive, top-of-the-line models, resulting in what we refer to today as sticker shock. Unfortunately, too, while some Edsel models were more expensive than comparable cars, they had an equivalent or greater number of quality problems. Often parts did not fit properly or were simply missing, since Ford frequently built Edsels between Fords and Mercurys on the same assembly line. Many dealers were ill equipped to replace these parts or add accessories.

Ford introduced 1959 and 1960 model Edsels, but sales plummeted to 44,891 and 2,846 cars, respectively. The November 21, 1959, edition of the *Saturday Evening Post* magazine ran the last ad for the Edsel, and Ford mercifully discontinued the Edsel that same month.

A very different scenario played out only a few years later, when Lee Iacocca, then with Ford, recognized a large and growing market segment of car buyers: affluent families shopping for a second car. Rather than simply creating a car, Ford wanted to understand customer desires and the value of the proposed car to the potential customer. That way, the company could develop a product that would tap the sweet spot in this market.

Ford turned to its market researchers, and the market researchers went to the customers. The market researchers identified growth in the number of families owning two cars, with the second car smaller and sportier than the family car. They also discovered that more women and single people were buying new cars. They then defined the necessary or must-have requirements for this new product. The new car must have strong performance, the capacity to handle four passengers, fuel economy, and a low price. Based on this research, Ford introduced the Falcon, which had many of these features.

But something was missing. The Ford market researchers went back and analyzed the buying patterns of Falcon customers. Many of the customers were ordering sportier options, such as automatic transmissions, whitewall tires, and more powerful engines. Ford used this extensive customer research, combined with customer visits, to develop a set of features that would *delight* the customer, not just meet basic expectations. The result was the Ford Mustang, whose final styling featured a long hood and short rear deck with Ferrari flair, giving the appearance of stealth performance—even just sitting in the driveway.

Fifty-two couples with average incomes who already owned a standard-size car were invited to the Ford styling room for a focus group test. Both white-collar and blue-collar couples were impressed with the styling of the Mustang prototype. However, when asked directly whether they would buy a Mustang, most said that they would not—until they learned the proposed price. At a base price of less than $2,500, any potential objections vanished.

WHAT FORD LEARNED FROM THE EDSEL EXPERIENCE

The Mustang was a huge hit. Following on the heels of the extremely successful Falcon, the Mustang was introduced in April of 1964 and sold

a record 418,812 vehicles its first year in production, surpassing the Falcon's 417,714-vehicle record. The J. Walter Thompson advertising agency heavily promoted the Mustang. Walter Murphy, of Ford's public relations organization, supported it with press releases, print and media advertising, direct mail, displays, and a plethora of news coverage, including simultaneous appearances on the covers of *Time* and *Newsweek*. During its first two years in production, the Mustang product line generated net profits of $1.1 billion in 1965 dollars. Today, the Mustang appears to be still galloping along and is celebrating its thirty-fifth anniversary in production.

The success of the Mustang demonstrates that Ford Motor Company did learn from the Edsel experience. The key difference between the ill-fated development of the Edsel and the roaring success of the Mustang was the shift from a product-centric focus to a customer-centric one. In his autobiography, Lee Iacocca summed up the differences between Ford's two new car introductions, which came fewer than ten years apart and provided a study in contrasts: "Whereas the Edsel had been a car in search of a market it never found, here was a market in search of a car. The normal procedure in Detroit was to build a car and then try to identify its buyers. But we were in a position to move in the opposite direction—and tailor a new product for a hungry new market."[1]

The success of the Mustang is legendary. Of course, it did benefit from favorable economic conditions, rising disposable income, a soon-to-be-enacted congressional income tax cut, and a burgeoning shift in population created by the baby-boom generation. However, similar conditions exist today, and Circuit City nonetheless experienced a financial disaster as a result of the Divx fiasco. (Recall that Divx, a pay-per-view variant of DVD, was taken off the market by Circuit City less than a year after its introduction, with losses tallying approximately $114 million.) The fundamental difference between the two developments was the process used to define the product. For Divx, the focus was *product-centric* and concentrated only on the financial rewards that would accrue from successful acceptance of the Divx format by the consumer. For the Mustang, the focus was the customer. Thoroughly understanding the customer's stated and unstated values allowed Ford to develop the product to meet those needs and assure its success before introducing it to the customer.

The payoff of the customer-focused approach is unarguable. At the time of the Mustang's introduction, development of an all-new car cost between $300 and $400 million. Ford's cost to develop the Mustang, however, was only $75 million, since many components were the same as those for the Falcon. Ford made $1.1 billion in net profit on its investment in the first two years, while Circuit City lost $114 million.

THE CUSTOMER DRIVES THE DEFINITION OF THE PRODUCT

More than three decades have passed since the introduction of the Mustang. While Ford Motor Company built a number of unspectacular automobiles in the 1970s, it launched the record-breaking Taurus in 1986 and the successful Explorer a few years later. Business paradigms during this period have changed, but the fundamental truth remains: *The customer drives the definition of the product. The organization must adapt its structures, roles, and internal activities to the dynamic requirements of the customer.*

It seems obvious that replicating Mustang product development experiences and avoiding Edsel or Divx experiences ought to be one of a company's primary goals. Why, then, has management theory from the post-World War II era to the present focused not on the customer, but on internal operational efficiency and product-centric issues?

In the years immediately following World War II, there was a tremendous pent-up demand for homes, consumer durable and nondurable goods, services, and virtually anything else that industry was capable of producing. Faced with unprecedented demand, the goal of business was production. The United States was preeminent, and U.S. industry held a monopolistic advantage over the decimated economies of Europe and Japan. The only customer consideration was that customers keep doing what they should do—consume.

The subsequent reindustrialization of Europe and Japan and the competitive threats represented by these economies shifted the focus of U.S. businesses to strategic planning.

It's useful to examine the evolution of market-driven strategy

throughout this period to the present. The strategic planning period covered the late 1960s and the decade of the 1970s. During this period, companies focused on improving their financial performance through optimal resource allocation to respond to the growing competitive threat. Each business was evaluated in the context of the corporate strategic plan. However, the limitations of the strategic planning process disappointed many managers. Corporations like General Electric abandoned the strategic planning model and eliminated strategic planning departments in their organizations.[2] In hindsight, it appears that many U.S. businesses were looking through the wrong end of the telescope, focusing on their own products and internal operations.

During the late 1970s and throughout the 1980s, pressures from Japanese industries, which were emerging as world-class competitors, increased. The shift from focusing on strategic planning to maximizing operational efficiency began with—and was led by—the management philosophy emanating from industry practices in Japan. Japanese management theory and practice focused on total quality, just-in-time manufacturing, automation, lights-out manufacturing, and operational efficiency throughout the organization. The emergence of "Japan, Inc." and the new Japanese mantra hit U.S. businesses like Pearl Harbor revisited. This wake-up call resulted in U.S. businesses' wholesale adoption of the total quality management (TQM) philosophy, Deming Quality Awards, organizational restructuring, quality circles, corporate downsizing, rightsizing, and lean and flat management structures. These measures did reduce costs and improve operational effectiveness, but they did not generate growth.

Early in the 1990s, many U.S. businesses, having successfully survived the Japanese threat of the 1980s, began shifting the fundamental premise of their management strategies to a market-driven focus. However, although today most companies consider themselves to be market-driven, many still are not. The problem may be endemic to success itself. During start-up, a company pays close attention to its customers. The very survival of the organization requires intimate knowledge of customer needs and trends. However, as the organization and its customer base expand, the organizational focus tends to shift from customers and their requirements to the company's internal operation. Budgets, core

competencies, operational efficiency, and resource allocation become management's chief concerns. Total quality management, reengineering, and quality function deployment may show companies how to operate more cost-effectively, efficiently, and successfully, but the company's very success leads to the integration of these processes and procedures. The result: Companies often develop unwanted, unsuccessful, competitively inferior, or me-too products. This applies equally to the large *Fortune* 500 companies and to mature smaller organizations.

THE PRODUCT DEVELOPMENT PROCESS HOLDS THE KEY

Regardless of the size of your organization, the industry in which you participate, your market share, your growth rate, your profitability, your shareholder value, your growth in market cap, or any other measurement of business success, you face competition (that is, unless you occupy a monopoly position and your customers have no choice but to consume your products or services now and forever). Even companies like Microsoft, the 800-pound gorilla of its market, face competitive threats. Microsoft must stay in front of the competitive technological curve, the Internet, and ward off the U.S. Department of Justice to maintain dominance.

Given the reality of continuous competitive threats, a company's principal business functions, espoused by Peter F. Drucker, are to *innovate* and to *market*. The ability to grow sales, stay ahead of the competition, increase market share, increase profitability, enhance ROI, grow shareholder value, and pursue many other worthwhile business goals begins with innovation through successful product development. Product development is the common element across all companies.

PRODUCT DECISIONS MUST COME BEFORE DEVELOPMENT

It is therefore imperative that an organization make the right product decisions before launching into full-scale product development. Yet

many products fail to satisfy their intended customers. Why? Because companies fail to build into the product development process the necessary steps that will ensure the full consideration of customer requirements, both stated and unstated, *before* product development begins.

A study on the factors influencing effective product development conducted by Product Developing Consulting, Inc., and the Management Roundtable reveals the haphazard way in which many companies approach gathering and quantifying customer input. The survey polled 4,000 companies representing a wide cross section of industries[3] selling products that ranged in price from less than $100 to more than $2 million. Products from approximately half of the 335 responding companies sold for less than $1,500.

Only 25 percent of the responding companies fell into the best-in-class group based on the following criteria:

- Their new products met or exceeded sales objectives and financial criteria.
- They had self-reported medium and rising market share, high market share that remained constant, or high and rising market share.
- They felt that their product development process was successful.
- They indicated that products brought new ideas to the market with a shorter cycle time than their competitors.

The remaining companies (close to 250 of them) did not meet these criteria. The results of the survey indicate that both the average and best performers have ample room for improvement in product development.

Although a thorough understanding of customers' needs is an obvious condition for sound product development, fewer than half of all respondents reported that the development team thoroughly understood users' needs at the start of full-scale development.

Digging deeper into the survey results reveals more about the tremendous impact that the appropriate discovery of customer requirements can have on product success. For example, the companies that participated in the PDC study reported that average cycle time for prod-

uct development in their industries ranged from fifteen to thirty-four months, representing a significant investment in time and cost. Yet the primary cause of major feature changes for all companies, both best and worst in class, was reported to be the *late discovery of customer requirements*. The second highest cause was reported to be unanticipated technical difficulties. While the latter may not be predictable at the start of a project, discovering customer requirements *after* the start of product development is certainly preventable. Unfortunately, the study could not identify how many technical difficulties arose as a result of late discovery of customer requirements.

The same two factors, late discovery of customer requirements and technical difficulties, were cited as causes of schedule slips, which can have a devastating effect on time to market. Not surprisingly, the best companies had lower slip rates in their planned product development than the rest. About 35 percent of the companies in the remaining group reported experiencing slippage in their product development schedules. In many cases, the slippage turned into outright cancellation, which is also costly (although often not as costly as the alternative of continuing to sink money into a project plagued by repeated delays). While the best companies reported that they cancelled only 10 percent of projects after starting full-scale development, the remaining companies cancelled 17 percent of all projects, or 70 percent more.

POOR PRODUCT DEFINITION IS THE SINGLE BIGGEST FACTOR IN PRODUCT FAILURE

While the factors influencing effective product development are highly variable, the study determined that the single biggest factor in the failure of products to meet market needs is poor product definition. Product definition, in turn, is linked directly to the ability of a company to discover and synthesize customer input. Although the best companies appeared to conduct more thorough, in-depth customer interviews and to visit customer sites for a longer period of time and with representation from more functions in the company than the rest, both groups spent,

on average, only seven days at customer sites. This is particularly alarming when one considers that 70 percent of product life cycle costs are determined during the crucial product definition phase.

Unfortunately, companies often frame their market view and define product attributes to match the company's core competencies rather than to provide what the customer actually wants—and is willing to pay to receive. Companies often let internally driven product road maps or platform strategies drive fundamental business decisions (although it is possible to create a customer-centric road map or platform strategy). A study of "value innovation"[4] revealed that while 86 percent of new product launches were product line extensions, they generated just 62 percent of the total revenues and only 39 percent of the total profits. The remaining 14 percent of the new product launches generated 38 percent of revenues and 61 percent of total profits. The lesson? New products, not brand extensions, have the biggest impact on a company's bottom line. Examining customer requirements, thinking hard about how they are changing, and imagining alternative solutions increases the likelihood of generating totally new offerings that can command greater revenue and higher margins.

Fuzzy Thought, Fuzzy Development, Fuzzy Products

The incontrovertible evidence demonstrates that the logical focus and starting point must be the customer. Yet, as shown, half of the responding companies did not thoroughly understand the customer's needs before starting full-scale product development, and companies spent an average of only seven days on visits to customers' sites. Combined with the knowledge that the products producing the highest profits were new products, these facts offer a compelling argument for changing the product development process. But how?

The process of identifying customer value attributes for any product must be a disciplined one. This is often where the process starts to go wrong. Companies embark on the development process with few

tools, no metrics, and only a seat-of-the-pants plan for gathering, analyzing, and applying knowledge about what customers value. George Day, in his study of Dupont,[5] found that:

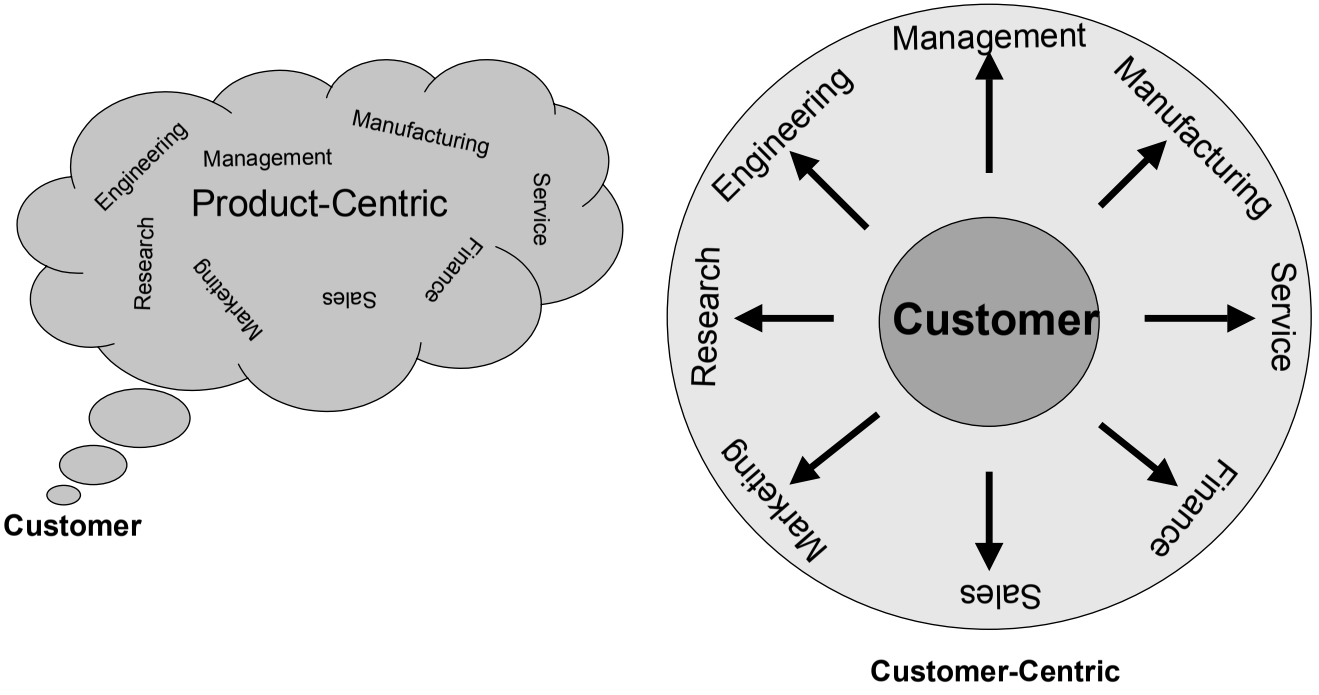
> Each of the business teams were asked to make their own rank ordering of the attributes the customers are likely to use before the survey is made. Seldom is the internal list as detailed as the subsequent customer responses reveal. Normally about 15 attributes are found—whereas the management list is only 8 to 12 attributes deep. There is also wide variation in the rank orderings of the attributes within the business team. The sales force has one view, internal marketing another, and manufacturing and R&D managers very different opinions.

The lack of consensus among functional groups (sometimes referred to as silos) within an organization is often the misdirected starting point for what has been described as the fuzzy front end of product development. This fuzziness results from the lack of a cohesive definition of the customer value attributes in the product definition. Figure 1.1 illustrates this dichotomy. Often, the company's understanding of the market is emotional or anecdotal rather than systematic, repeatable, in-depth, and analytical.

A review of past product development projects, which PDC often undertakes during its consulting assignments, can provide a useful benchmark to understand a company's current product development process. The process usually goes something like this: Someone or some group in the organization gets an idea for a product and suggests that it might be something customers would want. The idea may have been generated from valid customer comments at a trade show, directly from customer sales visits by a company executive, or from reactions to a competitor's initiative, or it may emerge from the company's own R&D efforts.

Once the company identifies the perceived opportunity, problem, and technological innovation, it begins the development process. It forms a team, creates schedules, assesses business risk and opportunity, allocates money and resources, and begins development—often without

Figure 1.1. A product-centric approach results in fuzzy product definition, with varying views from different corporate functions. A customer-centric approach is cohesive, systematic, and repeatable, and is more likely to lead to one unified view.



taking the time to poll the market in a systematic way in order to thoroughly understand the needs of the market and define the product attributes required to satisfy those needs. This is one reason why product development projects are delayed, over budget, misdirected, and, all too often, unsuccessful.

THE COMPANY DOESN'T ALWAYS KNOW BEST—AND THE CUSTOMER IS NOT ALWAYS RIGHT

Companies often claim, "We are leaders in our market, and we know what our customers' needs are," or variations on that theme. It is certainly true and obvious that many features must be included in a product. It is also true that managers in a company usually *do* know their market intimately and understand many of their customers' requirements. However, as the Dupont study revealed, it is *not* true that the company knows the relative value to the customer of the features incorporated in the product. Also, when product features are subjectively derived inside the organization, the development process does not identify *unexpressed* customer needs. Furthermore, potential customers often cannot or will not explicitly articulate their needs.

Robert A. Lutz, former president and vice chairman of Chrysler Corporation, in his book *Guts: The Seven Laws of Business That Made Chrysler the World's Hottest Car Company,*[6] postulated in his Law No. 1 that the customer is not always right. He cautions that customers don't always know what they want. If the process used in the product definition phase to determine customer requirements focuses only on *known* product features, you'll miss the *real* customer requirements that will delight the market. Lutz emphasizes that you can't expect your customers to do your creative work. "They want to be delighted, surprised, even challenged," Lutz comments. If you build only known features into your products, you are not differentiating your product from your competitors' products. This is like looking in the rearview mirror while you're driving. You'll have a great view of where you've been, but not

of where you're going or, more importantly, of where your customers would like your organization to go.

Unfortunately, the mere process of gathering customer input can be seductive. It can lull companies into a false sense of security, into thinking that they have indeed done the research necessary to build products that will delight their customers. That's why it is so important to employ a discovery process that goes beyond most of the product development planning processes in use today.

Bio-Rad

Bio-Rad Laboratories, based in Hercules, California, is a multinational manufacturer and distributor of life science research products, clinical diagnostics, and analytical instrumentation. The company serves more than 70,000 research and industry customers worldwide and has approximately 2,500 employees. Founded in 1957, the company had 1999 revenues of approximately $500 million. Bio-Rad's Clinical Diagnostic Group was one of PDC's clients. Steve Binder, director of technology development, instituted PDC's MDPD process to define the critical features for instrumentation used to diagnose metabolic, genetic, infectious, and thyroid diseases.

Steve's team found that certain features were much less important to customers than the team had originally believed. For example, the team thought that the instrument's throughput (specimens per hour), a commonly used metric in the industry, was critical to a customer's buying decision. In fact, while throughput is a consideration, the MDPD process revealed that this characteristic falls far down on the list of desirable features and that greater throughput does not help sell the instrument.

This information told the design engineers that the throughput function in new instruments had to be competitive, nothing more. This affected a huge number of product-related issues: the time required to develop new instruments, the technological hurdles imposed on the instrument by higher throughput, the manu-

facturability, product reliability, maintenance service requirements, and most other elements in the product's life cycle—not to mention return on investment. Yet many groups in the organization automatically assumed that higher throughput was important and that maximizing throughput was a requirement for new products in this category. More throughput was considered the Holy Grail for new products by internal company functions, but not by the customers who would purchase the product.

The MDPD process helped Bio-Rad identify another significant yet latent need. One prospective customer who was interviewed expressed frustration that when the machine stopped in the middle of an extended test, with some test results completed and others incomplete, the machine would not release the completed test results until the problem was fixed. As simple as this sounds, consider the aggravation of completing 98 percent of a cycle of tests before the machine stopped and then being unable to get the results of the tests that had been completed. When Bio-Rad subsequently validated these findings with a broad survey, it learned that virtually all customers felt strongly about the ability to get partial results. Yet this feature was not incorporated into most of the competitive offerings on the market. The desire for this feature had not been stated expressly, but rather was uncovered during part of the MDPD process that involved analyzing the contextual environment of the laboratory. The MDPD process had revealed a significant customer need that was unmet by most of the current competitive products.

In defining product requirements, the MDPD process also separated fact from opinion. For example, the input from the team representative from sales was focused on the appearance of the unit, which this team member thought was significant. It turned out that while potential customers were concerned about the unit's footprint (how much desk space it required), they all agreed that appearance was not a critical issue. Their concern was functionality: Does it do the job?

Bio-Rad validated the information obtained during customer visits by surveying 400 customers around the world. Their customers' greatest concerns related to reliability and serviceability. It is not particularly surprising that these features were of primary con-

cern, given the nature of the product. However, the MDPD process helped Bio-Rad clearly define and prioritize customer requirements and translate them into very clear and specific instructions to the engineering department regarding where to invest resources. In addition, the MDPD process focused the diffuse opinions among the functional departments and helped develop a unified consensus for defining and prioritizing customer and market requirements. This clearly optimized the product development process, eliminated unnecessary product changes, and reduced the time to market. The success of the MDPD process has led Bio-Rad to integrate it into the product development cycle on an international scale.

Understanding the Voice of the Customer: Putting MDPD to Work

Truly understanding the voice of the customer is an essential starting point in the product development process. Yet this seemingly straightforward element of the product definition phase of the product development process is anything but straightforward. PDC's experience shows that companies often feel deeply and believe strongly that they know *exactly* what their customers need. These feelings and beliefs represent a psychological barrier that companies need to overcome before they can effectively implement a customer-centric product definition process like MDPD. *All* companies hold these beliefs. The universality of these beliefs, and the need to overcome them, is one of the motivating forces for this book.

To illustrate just how profoundly overcoming preconceived notions of customer needs can affect a company, consider the case of The Reynolds and Reynolds company, headquartered in Dayton, Ohio. Reynolds and Reynolds is the leading provider of integrated information management solutions to the automotive retailing marketplace. The company's services include a full range of retail and enterprise management systems, networking and support, e-business applications, web services,

learning and consulting services, customer relationship management solutions, document management and leasing services. Revenues in 2000 exceeded $924 million, with approximately 5000 employees and a return on equity of 17.5 percent.

This well-run, successful company, delivering consistently solid fiscal performance, felt that its product definition process needed to be clearer, more systematic, and more repeatable. Reynolds and Reynolds suspected that its newly introduced products were slightly off the mark in terms of what customers wanted, and it knew that time to market was longer than desired. In addition, after introducing a new product, the company often had to expend considerable effort to change some product functionality and features.

Initially, the company considered a quality function deployment (QFD)[7] approach, but felt that such an approach would be cumbersome, time-consuming, and pervasive because it would involve wholesale business and cultural changes. It considered the MDPD process similar in principle to QFD, but smaller in scope and focused on the fuzzy front end, product definition. Moreover, MDPD achieved dramatic, documented results in the areas that most concerned Reynolds and Reynolds.

The first implementation of the MDPD process was a pilot project involving a new information system interface with a third-party vendor's software package. The MDPD process revealed that to meet customer requirements would require a change in the scope of the project. The product definition that Reynolds and Reynolds had initially envisioned differed significantly from the vision that emerged as a result of eliciting customer input through the MDPD process—a common experience. Reynolds and Reynolds realized that the investment necessary to meet customer requirements would be substantially higher than anticipated and the return would not be adequate.

The project was cancelled, but management was convinced that the MDPD process was a success. It had prevented a serious product development misstep and saved the company money. Being open to challenging internal assumptions about what customers wanted had enabled Reynolds and Reynolds to make a sound business decision based on the feedback from the MDPD process.

The second application of the MDPD process at Reynolds and

Reynolds had a very different outcome. This project involved improvements to an information system for managing car dealerships. Although customers had already voiced what they saw as the problems with an existing product, Dev Nanda, a product development leader, and his team decided to use the MDPD process. Reynolds and Reynolds management, and even some customers, were initially skeptical about the process, because they thought the product requirements had already been defined. "If we spent the time up front to get the proper definition, we believed, we would be able to move a lot faster in the development phase," Nanda says. "If you don't have the requirements completely defined, which is a premise of MDPD, you could go down a path throughout the development where you keep changing the requirements and end up spending more time and money. So, we went through the process. The total project from start to end was about ten months, and actually at the end of that, when we were through, the customers were really very delighted to see what we had done. I think that formed a foundation for moving forward with MDPD." MDPD is now part of the product development process at Reynolds and Reynolds on all critical projects.

Introducing MDPD

The MDPD process consists of four well-defined stages, each of which contributes to the ultimate goal of selecting a product or service solution for development. Typical product definition processes may include two or three activities before solution selection; MDPD encompasses fifteen, as shown in Figure 1.2. The process may seem burdensome to a team that is focused on getting a product out the door as quickly as possible. But companies that can muster the discipline to apply the process reap enormous rewards.

In Chapter 2, we'll begin to examine the planning stage of the MDPD process.

Figure 1.2. An overview of the MDPD process.