Business strategy has adjusted over the years to challenges from competitive and economic pressures. During the 1960s, marketing strategy primarily focused on developing long-range forecasts and budgets. Since this was a period of economic boom, management had the luxury of long-term planning horizons. During the 1970s, many organizations adopted a product management structure whereby each product was managed by one or more managers. However, market volatility, in the form of high inflation, high unemployment, and a wave of consumer discontent, proved this strategy ineffective in maintaining competitive positioning. The 1980s brought increased global competition that negatively affected consumer loyalty. This decade also brought transportation deregulation, opening the way to strategic logistics options that were once closed to a company. The 1990s were marked by amazing growth in information technology. Such growth paved the way for the development of strategic supply chain relationships and shorter product-to-market time, and it gave momentum to the growth in consumer power via the Internet. Information technology brought a wave of fast paced strategic challenges to managers who wanted to maintain their competitive advantage (Schewe & Smith, 1983; Williams, 1994).

Porter (1985) defines competitive advantage as sustaining superiority of interrelated activities within the firm. Day and Wensley (1988) use the term positional superiority or advantage to mean “a relative superiority in the skills and resources a business deploys.” Stalk, Evans, and Shulman (1992) refer to “capabilities-based competition” as the ability to sustain competitive positioning. Although different terms, each describes a similar underlying premise: firms must not only achieve and implement corporate strategies to bring about superiority in their markets, but they must also sustain that superiority. We will call this sustainable superiority in the marketplace competitive advantage.
Managers face the daunting task of identifying and developing unique capabilities to achieve a defensible position in the marketplace. The *how* of achieving and maintaining competitive advantage is at the heart of supply chain management. According to resource-based theory, there are two related methods for achieving competitive advantage: (1) assets, which are the resource endowments the business has accumulated (e.g., facilities, brand equity), and (2) capabilities, the glue that brings the assets together (Day, 1994). Capabilities differ from assets because they are so deeply embedded in the organizational routines and practices that they cannot be traded or imitated (Dierkx & Cool, 1989). Supply chain management may involve assets, but it is also the complex set of internally and externally interwoven processes that create a unique advantage that cannot be easily copied.

Porter (1985) argued that companies obtain competitive advantage via one of two strategies: cost or differentiation. Managers following a cost advantage strategy achieve a cost leadership position if they can sustain lower costs. Cost advantage is sustainable if there are entry or mobility barriers that prevent a competitor from imitating its sources. Further, Porter cites “linkages” as a driver of sustainability. Linkages are ties “which require coordination across organizational lines or with independent suppliers or channels” (p. 112). It is these linkages that are precisely the essence of supply chain management, and often the “mobility barriers” that prevent competitive imitation.

The second advantage is differentiation. A firm differentiates itself from its competitors if it can be unique at something that is valuable to customers (Day, 1994). The sustainability of differentiation depends on two things: its continued perceived value to customers and the lack of competitor ability to imitate it. Again, Porter defines a driver of sustainability that is related to supply chain management: “The sustainability of a differentiation strategy is usually greatest if differentiation stems from multiple sources, rather than resting on a single factor such as product design” (p. 159). Competitors who want to copy supply chain management strategies find it difficult because it requires unique, experienced, and well-coordinated relationships between multiple parties in the supply chain. Thus, superior supply chain management can lead to competitive advantage, and the infrastructure nature of this superiority makes it difficult to imitate. Therefore, the competitive advantage is sustainable.

According to Day and Wensley (1988), there are two perspectives for achieving competitive advantage in the marketplace: competitor-centered and customer-focused. The competitor-centered approach is based upon direct management comparisons with a small number of competitors. This approach is typically present in industries where the emphasis is on “beating the competition.” The key issue is how the company’s capabilities and offerings compare with its competitors’. Costs are closely monitored and quickly adjusted to match or thwart competitors’ moves. Managers keep a close watch on market share and contracts won or lost to detect changes in competitive positions.
The customer-focused approach (which is the focus of this chapter) begins with a detailed analysis of the customer benefits within the end-use segments and works backward from the customer to the company to identify the actions needed to improve performance. Managers following this approach emphasize the quality of customer relationships.

To achieve competitive advantage, the customer-focused perspective dictates that companies must realize that not all customers are created equal: some are critical to our success, some are less important and should be treated as such, and some are distracting us from serving the first two groups and should not be served at all. To understand these segments of customers, companies first need to answer several questions about their supply chains:

- Who is our customer?
- How do we reach our customer?
- How do we reach competitive advantage with our customer? (Hint: It is not always the product.)

In supply chain management, the answer to the first question is often more complicated than it sounds. Although we can often readily identify the end-use customer, that individual or organization may not be the relevant customer for our company. The relevant customer is the one that provides us with a source of competitive advantage throughout the entire supply chain, an advantage that should lead to greater market share with the final customer. The example of Company A in Chapter 1 was clearly a case of a snack food manufacturer who saw their relevant customer as the retailer. If Company A could deliver greater value to the retailer, that retailer would give better store placement to Company A products resulting in increased market share. This is precisely what happened.

Identifying the customer is the first step in a process illustrated in Figure 5.1. Once we identify who the customer is, we must identify what the customer values, choose the customer values that we will emphasize, provide that value to the customer, communicate to the customer the fact that we are providing that value, and finally (and continuously) assess the customer’s satisfaction with the value we are delivering.

To illustrate this process, let us turn to our first example of this SCM Driver.

**Company O—Implementing a Supply Chain Value Strategy**

Company O is in the auto aftermarket, a supply chain that provides replacement parts to auto repair shops through a network of distributors called warehouse distributors or WDs. Company O held approximately 30% market share
in this channel, about the same as their two major competitors, with the remaining 10% divided among minor competitors.

The product in this supply chain eventually is installed by a mechanic as part of an auto repair. As a result, there is virtually no brand recognition in this process. The owner of the car simply wants the car repaired and seldom asks for a specific brand. In fact, market research using a Customer Value Requirements Map (Woodruff & Gardial, 1996) (something we will discuss later in the chapter) to Identify the Value (Step 2 in Figure 5.1) revealed that car owners seldom knew the brand of the product installed on their cars and only valued three things in this process:

1. They wanted their car back the same day they took their car in for repair.
2. They wanted the problem fixed; that is, they did not want the replacement part to fail again as long as they owned the car.
3. They were sensitive to the price of the parts.

This led the auto mechanics (who were also studied with the Customer Value Requirements Map) to value the same three things:

1. They needed the parts within 24 hours of ordering them from the WD so they could be ready for scheduled repair appointments.
2. They were very concerned about product quality.
3. The lower their price on the parts, the higher their margin.
Notice that studying the car owners and the mechanics has now led us to a more in-depth look at Step 1 in Figure 5.1—just who is the relevant customer in this supply chain?

The results of customer value analysis of these two customers in the supply chain led one Company O executive to describe their company as a “commodity business”: there is no difference between the competitors in the market with respect to promotional programs or product quality or features, so the only basis on which to compete was price. However, since the major competitors had near-identical manufacturing processes, identical suppliers, and identical supply chains (the same supplier delivery systems to the plants and the same WDs to distribute the products to the same auto mechanics), their cost structures were very similar and any reduction in price was immediately matched by the competition, a move that simply reduced profit margins for all without increasing overall sales.

In other words, Company O faced the typical profit erosion of a “kinked demand curve” from an oligopoly with identical competitive mixes. If any competitor raised their price, the competition would not follow the higher prices and the competitor lost market share. If any competitor lowered their prices, the competition matched the new price and all competitors had the same market share but with lower profit margins. The industry was a classic example of Porter’s (1985) competitor-focused industry.

The road to competitive advantage began when the new CEO of Company O formed a task force to implement his personal vision of the company: to change the corporate vision of the company as a “manufacturer of products in the auto aftermarket” to “a marketer and distributor of products in the auto aftermarket.” In other words, to focus the attention of the company not on the product itself but how it got to the customer.

This profound shift in focus of Company O from competitor-focused to customer-centered led to the realization that Company O did, in fact, make a commodity product. The company’s customers saw no difference in product quality or features, and the promotional programs were largely ignored by all members of the supply chain. However, this did not mean the company could not come up with marketing and/or logistics services that would differentiate it from the competition. In other words, the CEO realized that having a commodity product does not mean you have a commodity business. There are always services in the supply chain that can be offered with a product that can differentiate it in the minds of the relevant customer.

The important aspect of this point for SCM Driver Four is that logistics services offered with the product often hold the key to differentiating a commodity product from its competition. Company O realized this once their entire supply chain was analyzed. Since all the competitors in the industry used the same suppliers and had the same manufacturing processes, the upstream supply chain was deemed to not hold any sources of competitive advantage.
Similarly, market research focused on the values of car owners and auto mechanics revealed little in how to differentiate Company O from the competition. However, Company O found the WDs were the key to competitive advantage. In other words, the WDs were the relevant Company O customers in the supply chain.

At the time of this example, there were 2,000 warehouse distributors in the United States, which meant that virtually every county with an auto repair shop had at least one WD. Their function in the supply chain is to provide ready access to inventory for the auto mechanic, who carries little or no inventory. When a customer called to schedule an auto repair, the mechanic would assess the likely parts needed to make the repair, call their local WD to ascertain whether the parts were in stock and, if available, would send someone over to pick up the parts. Mechanics expected their WDs to have the parts.

The WD operation usually consisted of a reception area with a counter for waiting on pick-up customers and a huge warehouse out back to hold in inventory all the parts any auto mechanic within the WD’s market area would conceivably order. As a result, WDs were small operations with huge inventory levels. In fact, the average inventory turns ratio for a WD was less than 1.0, resulting in huge inventory carrying costs compared with sales levels. Not surprisingly, most WDs were marginally profitable operations. Here lay the source of customer value for the WDs and the source of competitive advantage for Company O.

Company O embarked upon a 3-year plan to develop a wide area network for inventory planning and accompanied this with a plan to stage fast moving inventory at various locations in North America and pull slow movers back to a central distribution center. When these plans were implemented, Company O made the following offer to all WDs: Company O guaranteed that any order placed with them that was not completely filled within 24 hours would be free. In other words, if an order for 160 different parts was placed and only one of those parts was not delivered in 24 hours, there was no charge for the entire order. Further, each WD was given 1 year to try out the program, and, when they were convinced that Company O never missed a 24-hour delivery, Company O would buy back from the WD their excess inventory. This was an offer hard to resist since the WD would be turning a business liability (the cost of carrying excess inventory) into an asset (cash).

It is important to note that such a dramatic offer was made to the WDs simply to get them to pay attention to the amount of time it took to receive each order. This was due to the fact that WDs were historically accustomed to placing orders and receiving them from Company O or any of its competitors in 10 to 14 days. Thus, WDs simply did not believe Company O could pull off such a dramatic improvement in the delivery time component of customer service. Since each WD was hoping Company O would take longer than 24 hours (after all, doing so meant the WD did not have to pay for the entire
order) and after one year Company O had never taken longer than 24 hours for any order (given their self-imposed high cost of non-delivery, no charge, they could not afford to be late), Company O had changed WD perceptions of the value Company O was delivering by Providing the Value (Step 4 in Figure 5.1) and communicating it to the WDs (Step 5 in Figure 5.1).

The competitive advantage for Company O came from the fact that once a WD sold their excess inventory to Company O, the WD no longer had the ability to buy from the competition. WDs were literally faced with the choice of placing an order with Company O and being guaranteed 24-hour delivery or ordering from the competition and having the order arrive in 10 to 14 days, all when the WD was now only carrying, at most, several days of inventory. Over a 2-year period, Company O raised their price 15% above the competition (an act that would have been unthinkable before their new program) and doubled their market share.

What we learn about SCM Driver Four from the Company O example is this: Never confuse a commodity product with a commodity business. Instead, look at all the supply chain participants (Who is the customer?) to determine which values (How do we reach competitive advantage with our customer?) are something the company can use (How do we reach our customer?) to achieve competitive advantage. Again the hint: that “something” is not always the product—it is often a service, such as logistics performance. Company O’s new logistics system took several years to develop and implement, but once it was in place, the competition could not match the infrastructure changes. This provided sustainable competitive advantage for Company O that was not based upon a change in their commodity product. It was based upon how that product was distributed and how hard it was for the competition to match that superior logistics infrastructure once it was implemented.

Company O conducted considerable market research to identify what the members of their downstream supply chain—WDs, auto mechanics, and car owners—wanted. They eventually focused on the WDs because therein lay a source for competitive advantage. Auto mechanics and car owners were still important as customers but did not provide the source from which Company O could differentiate itself from the competition. The question we will address next is, Just how did Company O (and others) determine what their customers valued? The answer is the Customer Value Requirements Map we mentioned earlier.

**Customer Value Requirements Map**

In-depth study of customers’ high-end values, the desired consequences derived from these values, and the product attributes that lead to these consequences
Woodruff & Gardial (1996) can be involved, complex, and require trained interviewers to conduct the research. However, an effective means to at least determine the value requirements of customers in a supply chain setting can be obtained through use of a Customer Value Requirements Map (Figure 5.2). A Customer Value Requirements Map serves as a guide for company representatives to conduct interviews of customers and provides valuable insights into supply chain strategies to deliver those values.

Now, we do not recommend executives go visit their customers and say, “I need you to fill out this form.” Rather, we have trained thousands of executives, managers, and salespeople to visit with customers and say, “We cannot serve your needs unless we understand what you want from us. So tell me what it is about our product/service that is important to you.” Good follow-up questions to ask customers in this interview are, “What is it about our product/service that keeps you awake at night worrying?” and “If you had a wish list for our product/service, what three things would be on it?”

Executives are always surprised at how easy it is to get customers to talk about their use-experience with their products and services. When the customer is finished, review the list with them and ask, “Is there anything we did not cover?” What results is a list of things the customer values much like the list in Figure 5.3 that was generated by a customer of a personal computer company.

The next step is to determine the importance of each value requirement. Rather than ask the customer to rank each value requirement on a scale of
1 to 5, as shown in Figure 5.3, simply review the list and ask the customer, “Which of these is most important to you?” This requirement gets a ranking of 1. When they have answered this question, ask them, “Are there any other items on the list that are equally important to you?” These, also, receive a ranking of 1. This is followed by the question, “What is the next most important item?” (which receives a ranking of 2) and so on until all items have been rank ordered.

The result up to this point in the interview is the first two columns in Figure 5.3. Now comes the difficult part. Ask the customer, “On a scale of 1 (meaning we are excellent) to 5 (meaning we are terrible), tell us how well we are doing for you on each value requirement.” Then ask them the same question about your number one competitor. It is important at this point to remember that the interviewer’s job is not to argue with the customer but rather to simply capture what the customer thinks. The reason for this is that what the customer *thinks* is reality *is* the reality of how they will buy your (or your competitors’) products.

The result of this interview is a “map” like the one in Figure 5.3 that shows a company from the customer’s perspective: what is important to them and how the company is performing with respect to the company’s competitor. Two strategic insights result from this map: operational insights and

<table>
<thead>
<tr>
<th>Value Requirements</th>
<th>Importance Rating*</th>
<th>Performance Rating**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>1</td>
<td>F</td>
</tr>
<tr>
<td>Reliability</td>
<td>1</td>
<td>C</td>
</tr>
<tr>
<td>Technical Support</td>
<td>1</td>
<td>F</td>
</tr>
<tr>
<td>Weight</td>
<td>2</td>
<td>C</td>
</tr>
<tr>
<td>Price</td>
<td>3</td>
<td>F</td>
</tr>
</tbody>
</table>

* Importance Rating: From 1 = Essential to 5 = Not Important

**1 = Excellent; 2 = Good; 3 = Fair; 4 = Poor; 5 = Terrible (Map for Focal Company (F) and Competitor (C))
communication insights. Clearly from Figure 5.3, the focal company has a competitive advantage in the eyes of the customer with respect to speed and weight of their personal computer. However, the customer thinks the focal company’s technical support is lacking and the personal computer is over-priced. If the customer is right about the price, then the company faces an operational insight: whether or not to lower the price (sacrificing unit profit margins) and gain value perception in the eyes of the customer (and, thus, possibly gain market share). On the other hand, suppose the customer’s perception of technical support is actually wrong. The focal company has much faster and more responsive technical support than the competition. Then the focal company has a communication insight: it needs to more effectively promote and communicate its technical support capabilities to its customers.

The only question now left for the personal computer manufacturer in Figure 5.3 is to interview and/or survey enough customers to make certain these operational and communications insights are widely held among customers. It is important to note at this point that every example provided in this chapter started with the use of this Customer Value Requirements Map to determine exactly what customers valued, how the focal company was performing on each dimension, and how the competition was performing. The results led to the strategic moves discussed throughout these examples.

The use of this map is not limited strictly to consumer products. Figure 5.4, for example, provides similar insights for a company in the forest products industry of their customer’s (a printer) perceptions of their and their competitors’ products. The only revision to the questions above is to ask the customer, “What is it about your job that keeps you awake at night worrying?” and “If you had a wish list for your job, what three things would be on it?” The discussion should then be led to which of these value requirements are affected by the products and/or services our company sells to them.

Notice that a very similar type of map results for this industrial customer, but the value dimensions are very different. On two of the three most important requirements for this customer, product quality and trust of the supplier, the focal company scores very well. However, in the other number one value requirement, product availability, we again see an example of an operational strategic insight. The customer ranks the focal customer out of line (compared with the competition) on product availability, and this was actually true. If the company wants to improve its competitive positioning with this customer, it needs to improve its performance on this key customer value, having product available when the customer wants it.

A communications insight relates to product variety. Although the customer in this example felt the focal company had a limited variety, this was not actually the case. Thus, the insight for the focal company was to develop a promotional campaign, including trade publication advertising, direct mail, trade
show presentations, and sales force training, to emphasize to such customers the broad product variety the focal company was capable of providing.

An example of an operational and communications insight that the focal company must decide how to address was price. Two options—an operational approach of lowering prices, or a communications approach of training salespeople to emphasize the value to the customer of better product quality and trust, or a combination of both—are open to the focal company. However, the important point to note here is that neither of these insights would have resulted if the focal company had not asked the customer what they valued.

In fact, we have asked thousands of executives and salespeople over the years to go through the exercise of interviewing at least one of their key customers, and, in every case, they have come back and said the same thing: “Our customers told us something they value that we had never thought about before.”

In fact, we have asked thousands of executives and salespeople over the years to go through the exercise of interviewing at least one of their key customers, and, in every case, they have come back and said the same thing: “Our customers told us something they value that we had never thought about before.”

The other comment we have heard from over 60% of the executives and salespeople we have put through this exercise is illustrated in both Figures 5.3 and 5.4: “We thought price was the only thing our customers cared about, and they told us it was not even the most important thing.”

It is precisely these insights from our customers about what is important to them, and how they think we are doing compared with the competition, that leads to strategies that achieve competitive advantage.
One company that effectively used the Customer Value Requirements Map to interview numerous customers was Company P. Company P provides surgical supplies to hundreds of hospitals in North America. They have patents on several sterilization processes, but (after interviewing a number of relevant customers in their supply chain) they found their key to competitive advantage was in how they delivered these supplies to the customers.

However, the first step on this road to competitive advantage was the realization that they could not effectively serve all surgeons. Given the sterilization times needed, and the supply chain planning necessary to deliver supplies (gauze, forceps, sutures, scalpels, etc.) to the surgical theatre, they realized that their key customers were surgeons who planned their operating schedule several weeks in advance. Since they had no competitive advantage in delivering supplies to surgeons who schedule their operations only several days in advance—and particularly with surgeons who operate in emergency rooms and do not know their operating schedules from one minute to the next—Company P does not even try to sell to these potential customers. In the words of SCM Driver Four, the surgeons who planned operations in advance were “more equal” than the others.

Surgeons who planned their operating schedule several weeks in advance perform a variety of types of operations, but all have in common the characteristic of knowing well in advance what operations they will perform in their resident hospitals on a given day, and they know the order in which these operations will be performed. Since these surgeons have brand preferences for many of the suppliers they use, Company P maintains a database for over 16,000 such surgeons in North America, containing the types of operations they perform, the supplies required for each operation, the surgeon’s brand preferences for each supply item, and the name and contact information for that surgeon’s head surgical nurse and hospital administrator.

The reason for the contact information for the head surgical nurse came from a series of Customer Value Requirements Map interviews, in which it was revealed that what the surgeon most valued was to walk into the surgical theatre, perform the surgery, and never have to stand around waiting for supplies (or anything else, for that matter). The key to making this all happen is the head surgical nurse.

What the head surgical nurse valued most was not having to run all over the hospital to retrieve the supplies required for each operation and then wait around (while the surgeon is becoming frustrated) while these supplies were sterilized. When the operation was over, many of these supplies were now
biohazards, the proper disposal of which was the primary value of the hospital administrator.

So Company P devised a supply chain whereby each night, at each customer hospital, for each customer surgeon, something that looks very much like a trash can shows up at the receiving dock. When this patented “trash can” is wheeled into the surgical theatre in the morning, the head surgical nurse (who is already prepped for surgery) opens the can and sees a series of shelves. On the first shelf are all the supplies the surgeon needs (properly sterilized and sealed, of course) for the first planned surgery of the day. The head surgical nurse opens the sealed container, places everything on the surgical tray, and the surgeon has all the supplies necessary for the first surgery.

As the surgery progresses, the head surgical nurse places all discarded surgery supplies in a hole at the back of the trash can, which is the opening to a biohazard container. When the first surgery is completed, the head surgical nurse simply moves to the next tray for the next set of supplies, and the order progresses until all operations for the day are completed. At that point, the trash can (which now only contains the biohazard materials in the back) is wheeled to the receiving dock to be picked up by Company P when the trash can for the next day is delivered. Company P takes the biohazard supplies, recycles what can be resterilized and reused, resharpens any scalpels for reuse if appropriate, and properly disposes of any true biohazard materials. Thus, hospital administrators no longer have to worry about what Customer Value Requirements Map interviews revealed was the item that keeps them awake worrying the most—proper biohazard disposal procedures.

What about health insurance companies? Since Company P delivers all these supplies in a cost-effective manner, lowers the inventory in surgical supplies the hospital needs to keep, and lowers the hospital’s biohazard disposal costs, health insurance companies are also receiving something they value: quality healthcare at a lower cost.

At this point, you might ask, “Where is the patient in all this supply chain?” Although the ultimate customer, as one hospital administrator put it, “You have to remember, the patient places a great deal of trust in the surgeon and, through the surgeon, in the surgery team. The patient is not even conscious during this process, so the key to forming the patient’s opinion of satisfaction is how satisfied the surgeon is.”

Company P is very successful in their supply chain because they realize who their key customers are: (in order) the surgeon, the head surgical nurse, the hospital administrator, the health insurance provider, and only remotely the patient. However, who is not their customer? Surgeons who do not operate in the planned manner that allows Company P’s supply chain (suppliers—to Company P—to hospital—to head surgical nurse—to surgeon—to patient—to head
surgical nurse—to hospital—to Company P—to biohazard disposal experts) to provide a competitive advantage.

**Company Q—Final Customers Versus Trade Partners**

What the previous examples teach us is that, for competitive advantage, companies must identify the customer with the value demands that actually present the potential for a competitive advantage for the company in the marketplace. As we said at the beginning of this chapter, it is often not the final customer.

This is not just true in the business-to-business (B2B) supply chains of the previous examples. Many companies in consumer products industries, when asked, “Who is your consumer?” will say, “The individuals who buy our products.” When asked, “Who is your customer?” they will say, “Wal-Mart, Target, CVS Drugstore, Best Buy, Circuit City,” or various other retailers that often represent a significant percentage of their overall sales.

One company in the consumer product goods industry has a dramatic example of the 80/20 rule gone crazy. The 80/20 rule says that 80% of your business typically comes from 20% of your customers. However, for this manufacturer of consumer products goods, 90% of their overall North American sales went through only 10 customers, those 10 customers being 10 big retailers. In Europe, 60% of their sales went through only 4 customers, again big retailers. Clearly, this company had millions and millions of final consumers, but only a very small number of customers they had to worry about to create competitive advantage in their supply chains.

Some customers are, quite simply, more important to us than others. Some customers represent such a large percentage of our sales that we should think about ways to create competitive advantage, not for our products, but for our products sold through those customers. The questions have not changed from the earlier examples:

- How do you reach your customers?
- How do you achieve competitive advantage with your customers?

In business-to-consumer (B2C) supply chains, that question often involves more than just the product. We may make a product that is priced no differently than the competition’s, has no different brand equity than the competition’s, and is promoted no differently. And, in fact, the product looks, for the large part, like a commodity. There would seem to be no basis on which to compete other than price.

However, if we create a cluster of services around a product through the supply chain and through trade partners that gives our company a
distinct advantage in the marketplace—not product-based, but supply chain service-based—then we are achieving SCM Driver Four. This cluster of services is often called *logistics leverage* (Mentzer & Williams, 2001).

Many companies competing in global markets have decreased prices (Craig, 1997), improved products (Woodruff & Gardial, 1996), and reduced design-to-shelf cycle times (Camp, 1989), only to find these strategies quickly copied by competitors (Porter, 1985). Yet companies are still actively searching for ways to build a sustainable advantage in the marketplace (Day, 1994; Innis & LaLonde, 1994). Many companies have turned to quality improvements in product design and internal processes to achieve competitive advantage (Stahl, 1994, 1999), only to have them imitated by their competition. Organizations overcome this competitive matching by focusing on delivering customer value to obtain competitive advantage (Woodruff & Gardial, 1996).

In the current environment, it is difficult to maintain competitive advantages that accrue from changes in product, promotion, or price. Many of today’s products, albeit manufactured in different global locations, have become homogenized and indistinguishable to the customer (Daugherty, Stank, & Ellinger, 1998). Given the ever shortening technology cycle, companies trying to create or maintain differentiation in the marketplace often find product changes quickly greeted by a countermove from competitors. Likewise, changes in promotion and price may be quickly duplicated. A particular challenge for supply chain strategy today is determining how to promote products whose features are perceived as homogeneous by customers. Because, for many companies, any change in product, promotion, or price has only a temporary impact in their markets, the way to sustainable differential advantage may not lie in changes in the product, promotion, or pricing strategies of the company but rather in improving ancillary supply chain services, such as logistics (Bowersox, Mentzer, & Speh, 1995). For this reason, logistics has been suggested as the strategic “battleground . . . displacing manufacturing, marketing, and quality as the focus of top management” (Woods, 1991). Many firms now stress logistics capabilities as a means of creating differentiation (Anderson & Narus, 1995).

Such service improvements are most likely to yield a sustainable competitive advantage (Day & Wensley, 1988) in the market when implemented through changes in the corporate infrastructure: people, technology, facilities, and/or strategic corporate relationships. Logistics leverage is defined by Mentzer and Williams (2001) as *the achievement of excellent and superior, infrastructure-based logistics performance, which—when implemented through a successful marketing strategy—creates recognizable value for customers*. As such, logistics leverage represents a sustainable competitive advantage for the company: value added services that the customer recognizes as important and (as it requires changes in the corporate infrastructure) that the competition cannot readily match.
The question managers face is how to maintain such an advantage given factors such as the homogenization of products and shortening product-to-shelf cycles. A careful review of the work by Porter (1985), Bowersox, Mentzer, and Speh (1995), and Innis and LaLonde (1994) reveals some insights. Each refers to logistics as instrumental and central to providing competitive advantage. Unlike a product change or enhancement, achieving logistics superiority (because it involves changes in the people, technology, facilities, and/or strategic corporate relationships infrastructures of the company) is a capability difficult to imitate. In addition, regardless of whether managers define their market as competitor-focused or customer-driven, achieving competitive advantage through leveraging logistics is likely to achieve and maintain competitive superiority.

Perhaps the most popular indicators of marketing effectiveness and competitive advantage are market share and profitability (Dess & Robinson, 1984; Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Narver & Slater, 1990, 1991; Slater & Narver, 1994). Firms that are able to create value for their customers by satisfying their needs and wants generally increase their market share. Logistics, the last point of contact between the firm and its customers (Coyle, Bardi, & Langley, 1996), has a direct impact on customer satisfaction and, thus, impacts market share.

Day (1994) supports this position by stating, "What really matters is achieving a defensible cost position" when faced with the challenge of achieving superior performance. Logistics has historically been concerned with cost reduction (Coyle, Bardi, & Langley, 1996). The primary basis for transportation deregulation in the United States was to decrease transportation-related logistics costs (Krapfel & Mentzer, 1982; Mentzer & Krapfel, 1981a, 1981b). Thus, achieving logistics success will, at a minimum, involve cost reductions.

Leveraging logistics success can reduce costs and increase customer satisfaction and, therefore, positively influence the firm's profitability. Profitability is a desirable outcome because it creates shareholder value. When consistently and substantially maintained, it ensures the firm's longevity (Groves & Valsamakis, 1998).

But how can this logistics leverage be applied to achieve market share and profitability in the supply chain? Company Q, a major global manufacturer of consumer appliances, provides us some insight. Company Q long based its competitive positioning on the development of excellent quality products with recognizable features that customers wanted. This strategy established Company Q as a respected brand in consumer appliances, but most of its product innovations were quickly copied by competitors, and the level of quality maintained by Company Q was no different, in the eyes of the consumer, than any other manufacturer. To make matters worse, other competitors spent considerably greater amounts of money on advertising, thus creating greater brand...
equity than Company Q. This brand equity led to a perception by retailers that Company Q competitors were better at creating retail store traffic than Company Q (remember from the Company A example in Chapter 1 that traffic is one of the key value concerns of retailers).

Company Q decided to focus its attention not just on the final consumer of their products but upon the retailers (Company Q refers to them as trade partners) that sell their products. Company Q implemented logistics leverage in the form of a series of changes to their supply chains that allows Company Q to guarantee (given certain information provided by the retailers on point-of-sale [POS] demand and inventory levels) availability of product and on-time delivery to the stores a much higher percentage of the time than any of their competitors. In fact, Company Q became so proficient at this that they managed to reduce their days sales outstanding (DSO), or the amount of finished product in inventory, while simultaneously raising their in-stock percentage by five points. Since a lower DSO means less inventory carrying costs, this positively affects Company Q profitability. Since better availability meant retailers could depend upon Company Q and, thus, were more willing to carry their product, Company Q market share dramatically increased. (Company Q combined this strategy with increased advertising to create great final consumer brand equity and, thus, overcome the retail store traffic concerns of the retail customers.) In fact, one retail customer simply stopped carrying competitive brands and only stocked Company Q products.

Following SCM Driver Four, Company Q even stopped selling product to some retailers (these retailers were not created as equal as other key retailers) because they would not provide Company Q with the POS data Company Q needed to make their version of logistics leverage work. Even though these retailers wanted to stock Company Q products, the answer from Company Q executives was, “We cannot make money for us and for you the way you want to do business, so we would rather you did not carry our products.” Of course, since the Company Q logistics leverage strategy was making money and gaining market share for both Company Q and its trade partner retailers, these nonparticipating retailers suffered an ever decreasing share of this appliance business—and became even less important to Company Q’s success.

Company R—Managing Trade Partner Assets

Company R is in a sector of the consumer appliance business that is similar, but noncompetitive, with Company Q. They have also applied the logistics leverage concept by training their salespeople (who sell exclusively to retail customers) to see themselves, “not as account managers, but as asset managers.” This change in orientation is very similar to the Company Q case, where
salespeople see their job as not selling product to retailers but rather as selling product through the retailer to the final consumer (Company R brand equity is such that it does help create considerable retail store traffic) to achieve profitability for both the retailer and the vendor. Company R trains their salespeople to help the retailers manage their own inventory levels.

Given the fact that retailers can depend upon Company R to have the product desired in stock and deliver it quickly, salespeople help retailers change their inventory management decision rules to carry less inventory (a source of profitability for the retailers). In addition, salespeople work with retailers to determine the fast selling items, which items affect sales of other items, and which items create the most store traffic, and to share successful merchandising strategies across noncompetitive retailers. The result is greater profitability for the retailers (one retailer credits Company R’s advice with saving it from bankruptcy) and greater sales for Company R. Further, since from the retailer’s perspective Company R provides not only retail store traffic-creating products but also expertise, retailers are very loyal to this company and work with Company R to sell more of their product, often to the exclusion of competitors.

From Company Q and Company R we see two manufacturers who are achieving greater profitability (greater sales with lower inventory levels) and increasing market share, not just from making a quality product but from realizing who their key customers are, what they value (retail store traffic and sales, with lower inventory levels), and treating them well. In the case of one retailer, Company Q even takes this SCM Driver to the individual store basis. Realizing that one of their retail chain customers has a dozen “flagship stores.” Company Q makes certain they never miss a delivery to these stores—that is, they provide a 100% customer-service level. This inordinately high service level is a recognition that when upper management wants to know how a vendor is performing, they invariably ask the managers of these 12 stores, managers who think Company Q can do no wrong. Thus, Company Q realizes that, for this particular chain, the managers of these 12 flagship stores are more important than any other customers in this particular supply chain and treat them accordingly.

Company S—Shifting Resources to Satisfy Customers

Company S is in the machine tool business, a supply chain where the principal product may cost as much as $15 million. In fact, the capital cost of these machines is so large that customers of Company S (manufacturers who use the machine tools in making their products) estimate the costs of machine tool downtime in thousands of dollars per hour. These machines are marketed and distributed by Company S worldwide, so Company S must maintain a
downstream supply chain that can deliver the machines, and replacement parts, anywhere in the world.

Although the machines are expensive capital items, Company S found (through market research, again, involving Customer Value Requirements Maps) that the major source of customer dissatisfaction with Company S and its competitors was the delivery of replacement parts (parts that often cost less than $50). For example, when a customer in Singapore has a broken part on the machine, their satisfaction with the machine and the manufacturer of that machine is largely dependent on how fast they can obtain a replacement part and get the machine back in operation. This satisfaction, in turn, has a significant effect upon repeat sales and word-of-mouth reputation. To keep customer dissatisfaction from becoming a problem, Company S staged inventory all over the world (an expensive decision in its own right) and routinely shipped replacement parts to customers by overnight delivery—an international transportation service that often cost more than the actual value of the part. The result was that Company S spent tens of millions of dollars staging inventory and expediting shipments to make overnight commitments, and the customers were still dissatisfied! That is, Company S would often proudly deliver a $3.50 part overnight to a customer (at a cost of over $50!), and the customer would complain that their $15 million machine had been down for 24 hours!

As a result of this Customer Value Requirements Map insight (and in an effort to turn a customer dissatisfaction problem into a customer satisfaction advantage), Company S embarked upon a 4-year plan to implement a dramatic new logistics leverage strategy that was embodied in this phrase: “We guarantee we will deliver replacement parts to any customer worldwide before they order it.” Notice that this zero-delivery-time strategy embodies two key elements of logistics leverage: (1) excellent logistics performance (in this case, the ability to meet this guarantee), and (2) the ability to market this performance to customers (in this case, the dramatic promotional statement that easily conveys the superiority of their performance over the competition).

To accomplish this strategy, Company S began installing cellular phones in every machine they sold (a minor cost compared with the overall purchase price). No matter where the machines are in the world, every day each machine conducts a diagnostic analysis of its performance, calls the Company S home office, and transmits the results of these diagnostics. Company S computers analyze these diagnostics every night, determine whether any parts are beginning to fail, and if they are, the computers issue shipment orders to the distribution center. Within several days (usually at least a week before the part actually fails), the plant manager of the customer company receives a package from Company S containing the part and with instructions that the part is about to fail and should be replaced in the next regular maintenance session. Thus, the customer receives the replacement part before they ordered it!
Notice that this system eliminates the need for Company S to stage inventory all over the world (they now have only one global distribution center) and employ high-cost expedited modes of transportation. Because the order is no longer a rush order and can be sent far enough in advance by slower, less expensive modes of transportation, Company S has been able to substantially lower its inventory and transportation costs while simultaneously dramatically raising customer satisfaction levels. The higher customer service levels eventually resulted in dramatically increased market share. Customers could buy their machine tools from one of several equally competent manufacturers, but only one of these (Company S) had the logistics system to eliminate their customers’ unproductive downtime while waiting for replacement parts. As a result, customer perceptions actually changed to a belief that Company S made a higher quality machine than the competition. Typical comments from customers were, “Company S makes a great machine. It never breaks down.” Of course, the real answer is that Company S simply has developed the logistics infrastructure to replace parts before they fail, but the customer perception is that the machines are of superior quality.

This is a slightly different example of the communication insights illustrated in Figures 5.3 and 5.4. In both of those figures, the customer perceived that the company was worse at something—relative to the competition—than they really were. This resulted in a communications challenge for the company: how to convince the customer they were actually performing well when the customer did not perceive it as so. In the Company S example, the customer actually perceives the machine tool as higher quality when in fact the initial quality is no better or worse than the competition. Company S is simply better at keeping their machines running by using logistics leverage to prevent breakdowns. However, the improved customer perceptions of Company S products are a competitive advantage that Company S enjoys regardless.

What we learn about logistics leverage and SCM Driver Four in this case is that excellent logistics performance means nothing if the customer is not aware that it exists. Company S lowered its logistics costs dramatically by implementing the logistics aspect of this strategy. However, the dramatic increases in customer satisfaction, product quality perceptions, and market share only came as a result of properly marketing this performance, a marketing strategy that was built around the dramatic and catchy promotional phrase, “We guarantee we will deliver replacement parts to any customer worldwide before they order it.”

It is important to also realize that an effective logistics leverage strategy derived from SCM Driver Four comes from insightful market research (which is back to SCM Driver One, coordinating business functions). Rather than just asking customers about the product, Company S asked customers questions the customers thought should be asked. As a result, Company S discovered a
source of competitive advantage. Companies can only ask questions customers care about if they first conduct qualitative interviews with customers to determine what customers value, and then, what satisfies and dissatisfies them about these requirements they value. Only then can the company design customer satisfaction questionnaires. It is precisely this qualitative/quantitative market research approach that Company S followed, an approach that led them to develop a logistics leverage strategy based upon what the customers told them was important.

Notice again that the competitive advantage of logistics leverage came from the fact that Company S only announced this strategy after several years of installing cellular phones in their machines (something the competition was not doing) and several years of reconfiguring their logistics inventory, transportation, and information systems to accommodate this strategy (something the competition was also not doing). The result was that once Company S announced its new replacement parts guarantee, the competition was in no position to match it and was faced with several years of expensive changes in how they manufacture and distribute their product (their infrastructure) before they could match it.

Company S helps us illustrate one additional point about strategically implementing SCM Driver Four: shifting resources from areas customers do not care about to areas customers do care about. As Figure 5.5 illustrates, a simple matrix can demonstrate for companies whether their expenditures of resources match what customers really care about. The quadrant labeled “Satisfied Customers” is what we typically hear about in customer satisfaction examples, the instances where the company performs exceptionally well at something the customer also cares about. We hear such phrases as,
“the customer is number one,” “exceeding expectations,” and “delighting the customer,” surrounding examples of companies that have loyal customers because they seldom fail on the dimensions the customers value.

What we hear much less about, but what is nevertheless an equally valid example of SCM Driver Four, are companies that do not perform well on things customers do not care about. Although this seems to run athwart the concept of Total Quality Management (TQM), there are some things we just do not try to do well. This, in fact, is completely consistent with TQM, which is a management philosophy that says we should concentrate on the total quality of only two things:

1. anything the customer cares about;
2. anything that lowers our costs and the customer does not care about.

Notice that Company S did both of these. Company S became much less effective at rapid parts delivery—pulling inventory back to a central location (not giving customers inventory that was close to them) and using slower modes of transportation (not promising rapid transportation) because the customer did not care about either of these. What the customer did care about was never having the machine out of service, so Company S is superb at managing the quality of this aspect of their supply chain.

The key to effective and efficient management of customer value is moving resources from the Inefficient Service quadrant of Figure 5.5 (spending resources managing the total quality of something the customer not only may not care about, but may not even notice) to activities that fall in the Ineffective Service Quadrant of Figure 5.5 (things the customer does care about that the company is not good at accomplishing). Notice that this is precisely what Company S (and the other companies in the examples in this chapter) did. They took resources away from things their customers did not care about and redistributed those resources to what the customers did care about, usually with resultant dramatic increases in market share and/or profitability.

**Company T—Understanding the Customer Gaps**

There are multiple opportunities for supply chain partners to misunderstand each other. These “gaps” in understanding are illustrated in Figure 5.6. A beverage bottler, Company T, realized that numerous opportunities existed in their supply chain for misunderstandings between what their customers (retailers) wanted and what Company T delivered. Although customer expectations of quality are formed by various factors—past experience in the supply
chain, the needs of the retailer and their customers, and benchmarking information from other companies—the bottler did not always fully understand what those expectations were (Gap 1). This could happen for various reasons: the retailer did not tell the bottler salesperson what they wanted, the salesperson did not tell the bottler, or the salesperson and/or the bottler misunderstood what was expected. In any of these cases, the bottler loses the ability to give the retailer what they expect because they do not know, accurately, what it is.

Even in cases where Gap 1 did not exist, the bottler found that, internally, there was often a gap between what the retailer wanted and what the bottler’s own internal staff designed to fill that expectation (Gap 2). Further, a difference often existed between what was designed and what was actually produced (Gap 3, caused by not following SCM Driver One—that is, not coordinating the business functions). Following on this lack of internal coordination of business functions, what was communicated to customers was often different than what was actually produced by the bottler. Not surprisingly, the resultant perception of the retailer of what was delivered by the bottler was often far different than the original customer expectation (Gap 5). The result was a largely dissatisfied retailer base, who believed, “Company T just does not listen to us or care about what we want.” This, of course, was far from the truth, but Company T’s supply chain gaps created an image that they gave the retailer what Company T wanted and not what the retailer wanted. It took considerable effort to identify key

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**Figure 5.6** Expected Versus Perceived Performance  
Adapted from Parasuraman, Zeithaml, and Berry (1988)
customers, identify their expectations (SCM Driver Four), and coordinate Company T internal operations (SCM Driver One) to accurately deliver what the customer wanted and communicate that accuracy to the customers.

Dell Computer

And, finally, as an illustration of SCM Driver Four, we will discuss an undisguised company. In 1984, a University of Texas student who had been selling rebuilt PCs out of his dorm room thought about entering the emerging PC market. Ordinarily, entering a relatively established market would have been a ridiculous idea. It was conventional wisdom that Intel and Microsoft Corporations had taken all the margins out of the PC business, and all the products were viewed as commodities (there is that mistake again: assuming the only basis on which to compete is the product itself, without considering the services that accompany it). In addition, all the key players in the industry were building massive structures to produce everything a computer needed from disk drives to memory chips and applications software. Certainly, a new entrant could not compete.

The young college student, Michael Dell, decided to enter the market and, by doing so, totally revamped the industry. Dell Computers is now the undisputed industry leader. Dell applied a customer focus, supplier partnerships, mass customization, and Just-In-Time delivery to implement the strategy of virtual integration to create and sustain customer value.

By selling directly to customers via the Web, Dell Computers uses e-commerce to communicate with customers, maintain low costs, and customize products according to customer specifications. Dell Computers is driven by the desire to create value for the customer. Michael Dell himself said, “Looking for the [customer] value . . . is most important” (Magretta, 1998a).

Through the use of the Internet, Dell’s customers gain access to the same product, service, and catalog information as Dell’s employees. Tailor-made Internet cites called Premier Pages give customers direct access to purchasing and technical information about the specific configurations they buy from Dell. Thus, customers can order, configure, and even gather technical advice online, thereby turning a commodity product into a customized product offering.

For those customers who want or need more personalized assistance, Dell will send out one of more than 10,000 service technicians to their site. However, only a small number are Dell employees. Most are “virtual employees” that dress like Dell employees, talk like Dell employees, even cater to the customer like Dell employees, but are actually contract employees (supply chain partners). According to Michael Dell, this allows Dell’s employees to focus on activities that create the most value for customers.
Activities such as coordination with its virtual manufacturing facilities and inventory velocity and reduction are of primary concern for Dell because they result in lower costs to customers. Dell has a virtual manufacturing arrangement with key suppliers such as Sony. Sony employees work in the Dell facility on joint planning and product development. Because of this close relationship, and its reputation for building reliable computer monitors, Dell decided not to perform quality checks on Sony monitors. Thus, they determined there was no reason to maintain inventory. So, Sony manufactures monitors Just-In-Time for Dell. When needed, Dell instructs UPS or Airborne Express to pick up 10,000 monitors from Sony’s plant in Mexico and a corresponding 10,000 computers from Dell’s facility in Texas. UPS or Airborne Express match computers with monitors in the delivery process, eliminating the need for Dell to have an expensive distribution center to perform these functions (SCM Driver Three).

Dell strives to implement virtual integration because it allows them to meet customer needs faster and more efficiently than any other PC maker. If customers want, Dell will install company-specific software before delivery. They will also put an asset tag with the company’s logo on the machine and keep an electronic register of the customer’s assets. This saves the customer the time and expense of having their employees place asset tags on the equipment. Dell also places technicians at major customers’ sites. Thus, Dell becomes the customer’s virtual IT Department (applying SCM Driver Two), instead of just a traditional supplier.

Logistics leverage is at the core of Dell’s virtual integration strategy. Customer value is created and sustained in this highly competitive industry because no one can duplicate the customization, the logistics infrastructure, the employee infrastructure, and the unique supply chain partner relationships, all of which have resulted in decreased costs and increased customer service. Even when retailers aligned with Dell’s competitors began charging higher rates for servicing and supporting Dell products, customers remained loyal (Dell had placed their customers in the Satisfied Customers quadrant of Figure 5.5).

Leveraging logistics allows Dell to have long-term special relationships with both key suppliers and key customers (remember: not all customers are created equal). Unique product offerings and cost reductions have resulted in loyal customers and sustainable position. Thus, Dell has used logistics leverage to reduce cost and focus on creating value for customers.

**Summary and an Exercise**

These examples illustrate how companies can achieve competitive advantage through understanding what their customers value and developing the operational and communications strategies to deliver that value.
An exercise to start your company down a path to the successes similar to those in this chapter is to regularly interview customers and fill in the Customer Value Requirements Map in Figure 5.2. The goal should be to answer the following questions:

- Who is our customer?
- What do these customers value?
- What are we doing to provide these values?
- What are we doing to communicate our delivery of these values?
- How satisfied are our customers with our delivery and communication of these values?
- Are we spending resources on things the customers do not value?

By going through this exercise again and again with many customers, you will have taken the first step toward implementing SCM Driver of Competitive Advantage Four.