

# 7

## Industry Segmentation and Competitive Advantage

Industries are not homogeneous. Segments of industry have a structure just as industries do, and the strength of the five competitive forces often differs from one part of an industry to another. Segments also frequently involve differing buyer value chains and/or the value chain a firm requires to serve them well. Segments of an industry thus frequently differ widely in their structural attractiveness and in the requirements for competitive advantage in them. Crucial strategic questions facing a firm become (1) where in an industry to compete and (2) in what segments will focus strategies be sustainable because barriers can be built between segments.

Industry segmentation is the division of an industry into subunits for purposes of developing competitive strategy. Industry segmentation for competitive strategy must be broader than the familiar notion of market segmentation, though encompassing it. Market segmentation is concerned with identifying differences in buyer needs and purchasing

behavior, allowing a firm to serve segments that match its capabilities with distinct marketing programs. Market segmentation tends to focus on the marketing activities in the value chain. Industry segmentation combines buyer purchasing behavior with the behavior of costs, both production costs and the costs of serving different buyers. Industry segmentation encompasses the entire value chain. It also exposes the differences in structural attractiveness among segments, and the conflicts in serving segments simultaneously. This broader approach to segmentation can provide insights into new segmentation approaches and can be the basis of creating and sustaining competitive advantage.

Industry segmentation is necessary to address the central question of competitive scope within an industry, or what segments of an industry a firm should serve and how it should serve them. It is also the basis for the choice of focus strategies,<sup>1</sup> since it exposes segments that are poorly served by broadly-targeted competitors in which focus can be both sustainable and profitable. Broadly-targeted competitors must also understand industry segmentation, because it reveals areas where they are vulnerable to focusers and may suggest unattractive segments that are best left to competitors. Attention to segmentation from a strategic perspective is increasingly important because new developments in technology are altering some of the old rules of segmentation, with implications for both focusers and broadly-targeted firms.

This chapter describes the way an industry can be segmented for strategic purposes, as well as some of the implications for creating and sustaining competitive advantage. I begin by describing the underlying factors that create industry segments and the observable indicators that can be used to define them in practice. These principles provide the basis for constructing and interpreting an industry segmentation matrix and for evaluating alternative ways of segmenting an industry. Having defined how to segment an industry, I develop some important strategic implications that arise from segmentation. The conditions that make a segment structurally attractive are identified, as are the factors that lead to strategic interrelationships between segments. I then describe how a firm can choose the segments on which to base a focus strategy, and test its sustainability against competitors. The chapter concludes by showing how industry segmentation relates to industry definition.

<sup>1</sup>Focus strategies are described in Chapter 1.

## Bases for Industry Segmentation

An industry is a market in which similar or closely related products are sold to buyers, as shown schematically in Figure 7-1.<sup>2</sup> In some industries a single product variety is sold to all buyers. More typically, however, there are many existing or potential items in an industry's product line, distinguished by such characteristics as size, performance, and functions. Ancillary services (repair, installation, applications engineering) are also in fact distinct products that can be and often are provided separately from physical products.<sup>3</sup>

In some industries there is a single buyer (e.g., in some defense and space industries). More typically, though, there are many existing or potential buyers. These buyers are usually not all alike, but vary according to demographics, the characteristics of the industry in which they compete, location, and in other ways. Firms provide the link between products and buyers. Firms produce, sell, and deliver products through value chains (Chapters 2-4) in competition with each other. In some industries, there are independent distribution channels between firms and buyers involved in all or part of industry sales.

The boundaries of an industry are frequently in flux. Product lines are rarely static. Firms can create new product varieties that perform new functions, combine functions in new ways, or split off particular functions into separate products. Similarly, new buyers can

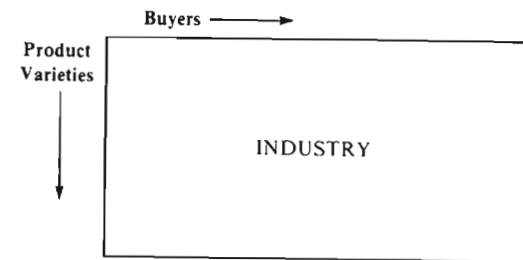


Figure 7-1. An Industry as an Array of Products and Buyers

<sup>2</sup>Throughout this book the term "product" has been used to describe both products and services. In most industries producing products there are some services that are part of the offering, and these are important to segmentation. The principles of analyzing both products and services for segmentation purposes are the same.

<sup>3</sup>Chapter 12 describes the strategic issues in bundling together physically distinct products and selling them as a package, something that many companies do without knowing it.

become part of an industry, existing buyers can drop out, or buyers may alter their purchasing behavior. The current array of products and buyers reflects the products that firms have chosen to introduce and the buyers that have chosen to buy them, and not the products and buyers that an industry could potentially encompass.

### Structural Bases for Segmentation

The reason that industries must be segmented for competitive strategy formulation is that the products, buyers, or both within an industry are dissimilar in ways that affect their *intrinsic attractiveness* or the way in which a firm gains *competitive advantage* in supplying them. Differences in structural attractiveness and in requirements for competitive advantage among an industry's products and buyers create industry segments.<sup>4</sup> Segments grow out of both differences in buyer behavior as well as differences in the economics of supplying different products or buyers. Product and buyer differences that do not affect structure or competitive advantage (e.g., differences in the color of an otherwise identical product variety) may be important for production or marketing, but responding to them is not essential to competitive strategy.

*Structural Differences and Segmentation.* Differences in products or buyers create industry segments if they alter one or more of the five competitive forces. Chapter 1 showed how the five competitive forces determine overall industry attractiveness. Structural analysis can also be applied to industry segments; the same five forces are at work. Economies of scale or supplier power, for example, can vary among product varieties even if they are sold to the same buyer. A given buyer may also possess differing propensities to substitute for different product varieties. Similarly, the power of buyers or the threat of substitution for the same product variety can differ from buyer to buyer. Figure 7-2 represents schematically how the five forces can vary by segment.<sup>5</sup>

<sup>4</sup>As we will see, industry segmentation flows from the intrinsic characteristics of an industry's products and buyers, irrespective of firms' existing strategies. Strategic groups (*Competitive Strategy*, Chapter 7) are the result of differences in firms' strategies, one dimension of which may be the different segments they serve. Thus industry segmentation is a building block for analyzing strategic groups.

<sup>5</sup>The threat of substitution and the threat of entry tend to be greater for segments than for an industry as a whole, because other product varieties are often substitutes for a product variety and competitors operating in other segments are often well-placed potential entrants to a segment.

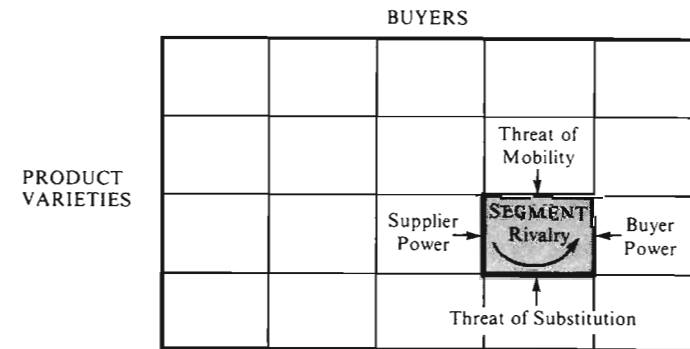


Figure 7-2. Differences in the Five Forces Among Segments

The television set industry provides an example of how the five forces can differ by product variety independently of who the buyer is. TV sets can be segmented by configuration (portables, table models, consoles and combination units). Small screen portables have become largely a commodity, while console TVs offer more opportunities for differentiation through styling, furniture, finish, and features. Moreover, console set production employs a different production process and different suppliers than the production of portables, and is less sensitive to economies of scale. These differences affect mobility barriers, supplier power, buyer power, and rivalry pressures. Similar differences which affect the five forces exist for other TV product varieties.

Large turbine generators illustrate how differences among buyers may also often have structural implications, *independent* of the product variety they purchase. Investor-owned electric utilities can be distinguished from municipally-owned utilities from a structural viewpoint. Investor-owned utilities tend to be more technologically sophisticated and purchase through a negotiation process, while municipal utilities are less sophisticated and purchase through public bidding. This creates differences in price sensitivity and in the ability of a firm to create mobility barriers in selling to the two types of utilities such as brand identity, switching costs, and proprietary product differences.

Both product varieties and buyers in an industry can potentially differ in all five of the competitive forces. In TV sets, for example, the distinction between console and portable sets has implications for mobility barriers, supplier power, and rivalry. In the turbine generator industry, investor-owned utilities and municipal utilities differ in their bargaining power, the rivalry among firms in serving them, and the

opportunity to erect mobility barriers. Even supplier power can vary for the same product variety depending on the end buyer's identity. In bicycles, for example, a bicycle enthusiast is much more aware of the brand name of key components such as hubs and derailleurs. This gives parts suppliers greater bargaining power in selling to firms targeting enthusiasts. They have far less power in selling to firms that sell bicycles to casual bicycle purchasers.

*Value Chain Differences and Segmentation.* Differences in products and buyers also create segments if they affect the requirements for competitive advantage. The value chain can be used to diagnose this. Differences in product varieties or buyers lead to segments if:

- they affect the drivers of cost or uniqueness in the firm's value chain
- they change the required configuration of the firm's value chain
- they imply differences in the buyer's value chain

An example of a product difference that affects the value chain is the difference between standard and premium bicycles. Standard bikes are built with an automated manufacturing process, while premium bikes are frequently handcrafted. Many other value activities differ for the two as well, and the drivers of cost and uniqueness of value activities differ accordingly. Thus the sources of competitive advantage for standard and premium bikes are quite different, making them different segments. Another good example of how different product varieties can affect the value chain is draft beer compared to canned beer. While the beer is the same, many other value activities are not.

An example of how differences in buyers can affect the firm's value chain is building insulation. Since many costs in the insulation industry are driven by regional scale and by the location of buyers in relation to plants, buyers located in different geographic regions constitute important segments. This example shows not only how buyers can differ in purchasing behavior, but also how the behavior of cost in serving buyers can be quite different, even with the identical product.

Value chains also differ among buyers. The way a hotel chain uses a TV set is different from how a household uses it, with strong implications for use criteria and signals of value (Chapter 4). Differences in use criteria and signals of value among buyers define segments, because they affect the requirement for competitive advantage. It is also important to recognize that the way different product varieties

fit into the *same* buyer's value chain can differ—for example, a new part versus a replacement part. Product differences that affect the buyer's use and signaling criteria define segments.

*The Array of Industry Segments.* In theory, every individual buyer or product variety in an industry could be a segment, because the five forces or the value chain were somehow different for each. In TV sets, for example, every screen size or feature might potentially constitute a different segment. Similarly, in turbine generators, every utility has a somewhat different value chain. In practice, however, product varieties and buyers should be grouped into categories that reflect their important differences. Deciding how to group products and buyers to capture the most important differences is a key to good segmentation and a subject to which I will return later.

An industry segment is always a *combination* of a product variety (or varieties) and some group of buyers who purchase it. In some cases, buyers do not have important structural differences and segments are defined by product varieties, and vice versa. Usually, however, structural differences in both product varieties and buyers are present in industries, leading to segments consisting of a subset of products sold to a subset of buyers. Note that product varieties are often associated with particular types of buyers that purchase them, as was true in both the TV set and turbine generator industries.

Industry segments must also be defined *independently* of the scope of activities chosen by existing competitors. Segments stem from structural differences within an industry that competitors may or may not have perceived. A segment may be important even though no competitor is yet focusing on it. Industry segmentation should include *potential* product varieties and buyer groups as well as those that already exist. The tendency in segmentation is to focus on observed differences in product varieties and buyers. Yet there are typically product varieties that are feasible but not yet produced, and potential buyer groups that are not currently being served. Unobserved or potential segments can be the most important to identify because they offer opportunities for preemptive moves that create competitive advantage.

#### Segmentation Variables

To segment an industry, each discrete product variety (and potential variety) in an industry should be identified and examined for structural or value chain differences from others. Product varieties can

be used directly as segmentation variables. Buyer segments can be identified in a similar fashion, by examining all the buyers in the industry and probing for structural or value chain differences among them. Since buyers vary in a multiplicity of ways, experience has shown that a good starting point in identifying buyer segments is to look for buyer differences along three broad and observable dimensions: buyer type, buyer geographic location, and distribution channel employed. Buyer type encompasses such things as the buyer's size, industry, strategy, or demographics.

While these three dimensions of buyers are often related, each has an independent effect. Location can significantly affect purchasing behavior and the value chain required to serve a buyer even if all other buyer characteristics are equal. Similarly, in many industries the same buyer is reached through different channels, though the channel employed is often related to buyer type (and also to product variety). For example, buyers of electronic components purchase small, rush orders of chips from distributors and purchase larger orders directly from manufacturers.

To segment an industry, then, four observable classes of segmentation variables are used either individually or in combination to capture differences among producers and buyers. In any given industry, any or all of these variables can define strategically relevant segments:

- *Product variety.* The discrete product varieties that are, or could be, produced.
- *Buyer type.* The types of end buyers that purchase, or could purchase, the industry's products.
- *Channel (immediate buyer).* The alternative distribution channels employed or potentially employed to reach end buyers.
- *Geographic buyer location.* The geographic location of buyers, defined by locality, region, country, or group of countries.<sup>6</sup>

Identifying segmentation variables is perhaps the most creative part of segmenting an industry, because it involves conceiving of dimensions along which products and buyers differ that carry important structural or value chain implications. This requires a clear understanding of industry structure as well as the firm's and the buyer's value chain.

<sup>6</sup>Geographic buyer location reflects the importance of geographic scope, defined in Chapter 2. For practical reasons, scope within the industry and geographic scope are best treated together in segmentation.

## PRODUCT SEGMENTS

To identify product segments, all the physically distinct product types produced or potentially produced by an industry should be isolated, including ancillary services that could feasibly be offered separately from the product. Replacement parts are also a distinct product variety. Groups or bundles of products that can be sold together as a single package should also be identified as a product variety, in addition to the items currently sold separately.<sup>7</sup> In the hospital management industry, for example, some firms sell a complete management package at a single price, while others sell individual services such as physician recruiting. The package should be viewed as a separate product variety for purposes of segmentation. Similarly, in industries where the product requires service, there are often three product varieties—the product sold separately, service sold separately, and the product and service sold together. In many industries, the list of product varieties that results from going through such a process is quite long.

Product varieties in an industry can differ in many ways that translate into structural or value chain differences and hence segments. Some of the most typical product differences that are good proxies for structural or value chain differences that define segments are as follows, along with some illustrative examples of why they reflect segments:

*Physical size.* Size is often a proxy for technological complexity or how a product is used, both of which affect the possibilities for differentiation. For example, different sized forklifts are typically used for different applications. Size may also imply differences in the value chain required to produce different varieties. Different sized varieties must often be manufactured on different machines, and require different components. For example, a miniature camera requires a different manufacturing process and higher precision components than a standard camera.

*Price level.* The price level of product varieties is often associated with buyer price sensitivity. Price also serves as a good proxy in some industries for the design and nature of manufacturing or selling value activities.

<sup>7</sup>Chapter 12 describes the strategic issues involved in bundling in some detail.

*Features.* Product varieties with different features may be associated with different levels of technological sophistication, different production processes, and different suppliers.

*Technology or design.* Differences in technology (e.g., analog versus digital watches) or design (front opening versus side opening valves) among product varieties can involve different levels of technological complexity, different production processes, and other factors.

*Inputs employed.* Sometimes product varieties differ significantly in their use of raw materials or other inputs (e.g., plastic versus metal parts). Such differences often have implications for the manufacturing process or supplier bargaining power.

*Packaging.* Varieties may differ in the way they are packaged and subsequently delivered, such as in bulk versus bagged sugar or draft versus canned beer. This translates into value chain differences in both the firm and buyers.

*Performance.* Performance differences such as pressure rating, fuel economy, and accuracy are related to the technology and design of product varieties, and often reflect differences in R&D, manufacturing sophistication, and testing.

*New versus aftermarket or replacement.* Replacement products often go through entirely different downstream value chains than identical new products, and may be different in other ways such as buyer price sensitivity, switching costs, and required delivery time.

*Product versus ancillary services or equipment.* The distinction between a product and ancillary products or services is often a key indicator of price sensitivity, differentiability, switching costs, and the value chain required to provide them.

*Bundled versus unbundled.* Selling various products as a package (bundle) versus selling individual items (unbundle) can have implications for mobility barriers, the ability to differentiate, and the value chain required (see Chapter 12).

The product differences that are most meaningful for industry segmentation are those that reflect the most important structural differences. There are often a number of different product descriptors that

are related. Price level, technology, and performance may all be correlated, for example, and reflect the same basic differences among products. If each descriptor is measuring the same difference, the measure that most closely measures or proxies the structural or value chain differences should be chosen.

*More than one* product dimension may define relevant segments, and all product differences that affect structure should be identified. The best method for segmenting an industry in which there are multiple segmentation variables will be discussed below. It is also important in product segmentation to include product varieties that are feasible though not currently being produced, such as service sold independently of the product or a product variety with a new mix of features. Good examples are cordless telephones and the "no name" food items now sold in grocery stores.

#### BUYER SEGMENTS

To identify buyer segments, all the different types of end buyers to which an industry sells must be examined for important structural or value chain differences. In most industries, there are several ways in which buyers can be classified. In consumer goods, for example, some key factors include age, income, household size, and decision maker. In industrial, commercial, or institutional products, buyer size, technological sophistication, and nature of use for the product are among the factors that distinguish buyers.

There is an active debate among marketers about the best means of segmenting buyers.<sup>8</sup> In fact, no one variable can ever capture all the buyer differences that might determine segments, particularly since differences that affect the cost of serving buyers (and the value chain for doing so) are often just as important for segmentation as differences in their purchasing behavior. Buyer segmentation should reflect the underlying structural and value chain differences among buyers rather than any single classification scheme, because the goal of segmentation is to expose all these differences.

#### *Industrial and Commercial Buyers*

Common factors which serve as proxies for structural or value chain differences that distinguish buyer segments among industrial

<sup>8</sup>For a good survey, see Moriarty (1983). Bonoma and Shapiro (1984) present a very useful analysis of industrial market segmentation and its implications for marketing strategy.

and commercial buyers are as follows, along with some illustrative examples of how they reflect segments:

**BUYER INDUSTRY.** The buyer's industry is often a proxy for how a product is used in the buyer's value chain and what fraction of total purchases it represents. For example, candy bar manufacturers buy and use chocolate much differently than dairy product firms, who use less chocolate and have less need for product quality. Differences such as these can affect factors such as buyer price sensitivity, susceptibility to substitution, and the cost of supplying the buyer.

**BUYER'S STRATEGY (E.G., DIFFERENTIATION VERSUS COST LEADERSHIP).** A buyer's competitive strategy is often an important indicator of how a product is used and of price sensitivity, among other things. Strategy shapes the buyer's value chain and the role a product plays in it. For example, a differentiated high-margin food processor is more concerned with ingredient quality and consistency than a private label food manufacturer that competes on cost.

**TECHNOLOGICAL SOPHISTICATION.** A buyer's technological sophistication can be an important indicator of its susceptibility to differentiation and resulting price sensitivity. Major oil companies tend to be more sophisticated buyers of oil field services and equipment than independents, for example.

**OEM VERSUS USER.** Original equipment manufacturers (OEMs) that incorporate a product into their product and sell it to other firms often have differing levels of price sensitivity and sophistication than firms that use the product themselves.

**VERTICAL INTEGRATION.** Whether a buyer is partially integrated into the product or into ancillary or related products (e.g., in-house service) can greatly affect the buyer's bargaining power and a firm's ability to differentiate itself.

**DECISION-MAKING UNIT OR PURCHASING PROCESS.** The particular individuals involved in the decision-making process can have a major impact on the sophistication of the purchase decision, the desired product attributes, and price sensitivity. Many industrial products are purchased in complex processes involving many individuals (see Chapter 4), and the procedures often vary markedly even among buyers

in the same industry. Some users of electronic components purchase through trained and dedicated purchasing agents, for example, and are much more price-sensitive than other component buyers that employ engineers in purchasing or use purchasing agents also responsible for purchasing other items.

**SIZE.** A buyer's size can indicate its bargaining power, how it uses a product, the purchasing procedures employed, and the value chain with which it is best supplied. Sometimes *order size* is the relevant measure of size, while in other industries it may be *total annual purchases*. In still other cases *company size* may be the best determinant of bargaining power and purchasing procedures.

**OWNERSHIP.** The ownership structure of a buyer firm may have a major impact on its motivations. Private companies may value different product characteristics than public companies, for example, while a division of a diversified firm may be guided by purchasing practices determined by the parent.

**FINANCIAL STRENGTH.** A buyer's profitability and financial resources can determine such things as its price sensitivity, need for credit, and frequency of purchase.

**ORDER PATTERN.** Buyers can differ in their ordering pattern in ways that affect buyer bargaining power or the value chain required to supply them. Buyers that place regular and predictable orders, for example, may be much less costly to serve than those whose orders come at erratic intervals. Some buyers also typically have more seasonal or cyclical purchasing patterns than others, affecting a firm's pattern of capacity utilization.

#### *Consumer Goods Buyers*

Typical proxies of buyer differences that define segments among consumer goods buyers are as follows, along with illustrative examples of how they reflect segments:

**DEMOGRAPHICS.** Buyer demographics can be a proxy for the desired product attributes, price sensitivity, and other use and signaling criteria. For example, single persons have different needs and purchasing patterns for frozen entrees than families with children. Many

aspects of demographics can be important, including family size, income, health, religion, sex, nationality, occupation, age, presence of working females, social class, etc. In banking, for example, wealth, annual income, and the education level of household members all determine what banking services are purchased and how price sensitive the buyer is.

**PSYCHOGRAPHICS OR LIFESTYLE.** Hard-to-measure factors such as lifestyle or self-image can be important discriminators of purchasing behavior among consumers. Jetsetters may value a product differently than equally wealthy conservatives, for example.<sup>9</sup>

**LANGUAGE.** Language also may define segments. In the record industry, for example, the Spanish speaking market worldwide is a relevant segment.

**DECISION-MAKING UNIT OR PURCHASING PROCESS.** The decision-making process within the household can be important to desired product attributes and price sensitivity. One spouse may be more interested in performance features of a car, for example, while the other opts for comfort and reliability.

**PURCHASE OCCASION.** Purchase occasion refers to such things as whether a product is purchased as a gift or for the buyer's own use, and whether the product is to be part of a special event or used routinely. A buyer's use and signaling criteria are often very different depending on the occasion, even if the buyer is the same person and the product is similar. Purchasers of pens for gifts, for example, will favor recognized brands names such as Cross that may carry less weight in purchasing for personal use.

Several buyer dimensions may be important in defining buyer segments. In oil field equipment, for example, buyer size, technological sophistication, and ownership are all relevant variables. In frozen entrees, household size, age of family members, whether both parents are working, and income are all relevant variables. *Potential* buyers of a product not currently purchasing may also constitute segments. Buyer segmentation variables may also be related and the task is to select the variables that best reflect structural and value chain differences.

<sup>9</sup>Marketers have proposed a number of other related ways of segmenting consumers, such as personality and loyalty. For a survey, see Kotler (1980).

## CHANNEL SEGMENTS

To identify segments based on channels, all existing and feasible channels through which a product can or does reach buyers should be identified. The channel employed usually has implications for how a firm configures its value chain and the vertical linkages (Chapter 2) that are present. The channel can also reflect factors which are important cost drivers such as order size, shipment size, and lead time. Large orders of electronic components are sold direct, for example, while small orders are sold through distributors (often to the same buyers). Channels can also differ greatly in bargaining power. Mass merchandisers such as Sears and K-Mart have a great deal more power than independent department stores.

Typical differences in channels that define segments include:

*Direct versus distributors.* Selling direct removes the need to gain access to channels and may imply a very different value chain than selling through distributors.

*Direct mail versus retail (or wholesale).* Direct mail eliminates the potential bargaining power of the intermediate channel. It also usually carries implications for value activities such as the logistical system.

*Distributors versus brokers.* Brokers typically do not hold inventory and may handle a different product line than distributors.

*Types of distributors or retailers.* Products may be sold through retailers or distributors of very different types, which carry different assortments and have different strategies and purchasing processes.

*Exclusive versus nonexclusive outlets.* Exclusivity may affect a channel's bargaining power and also the activities performed by the channel versus those performed by the firm.

There are often several types of channels in an industry. In copiers, for example, machines are sold direct as well as through copier distributors, office products distributors, and retailers. Channel segmentation must also include any *potential* channel that might be feasible. For example, L'eggs resegmented the hosiery market by discovering a new channel, the direct sale of hosiery to supermarkets.

## GEOGRAPHIC SEGMENTS

Geographic location can affect both buyer needs and the costs of serving buyers. Geographic location may be important directly as a cost driver and may also affect the value chain required to reach the buyer. Geographic location also frequently serves as a proxy for desired product attributes due to differences in weather, customs, government regulation, and the like. For example, commercial roofs in the southern United States require less insulation than in the North, while the roofing membrane is more likely to be ballasted with gravel in the North than in the South because a roof designed to take a snow load can handle the extra weight.

Typical geographic segments are based on variables such as the following:

*Localities, regions or countries.* Geographic areas may have differences in such areas as transportation systems and regulations. Geographic buyer location also plays a key role in defining scale economies. Depending on the geographic scope of scale economies (Chapter 3), different sized geographic areas may be the relevant segments. In the residential roofing shingle industry, regions are the appropriate segments because high logistical costs limit the effective radius of a plant. In food distribution, metropolitan areas are the appropriate segments because of dense customer location and use of trucks for local delivery.

*Weather zones.* Climatic conditions often have a strong impact on product needs or on the value chain required to serve an area.

*Country stage of development or other country groupings.* Buyers located in developing countries may have very different needs than those in developed countries. In addition, packaging, logistical systems, marketing systems, and many other aspects of the value chain may differ significantly. Similarly, other groupings of countries may expose similarities that define segments.

The relevant measure of geographic location for segmentation purposes will differ from industry to industry. In most cases, the relevant location to use in segmentation is the location where a product is actually *consumed* or used. However, sometimes the location to which a product is *shipped* (e.g., the warehouse) is more relevant. In other cases, the location of the buyer's *headquarters or primary*

*dwelling* emerges as the most important geographic segmentation variable, even though the buyer uses the product somewhere else.

There can also be more than one meaningful geographic segmentation. For example, regions may be meaningful segments for determining cost position in industries where the costs of key value activities are driven by regional scale, whereas countries may be meaningful segments for determining desired product attributes and the ability to differentiate.

## Finding New Segments

Some segmentation variables are readily apparent as a result of industry convention or competitor behavior. There are often established norms for dividing buyers or grouping geographic areas, based on historical data collected by trade associations or government agencies. In the oil industry, for example, the distinction between majors and independents is an accepted segmentation. Traditional categorization schemes for product varieties in an industry are also typical. Competitors may also define apparent segments through their choice of focus strategies.

However, segmentation must go beyond conventional wisdom and accepted classification schemes. Correct industry segmentation should reflect important differences for structure or the value chain among products, buyers, channels, or geography, whether or not they are recognized and used currently. The greatest opportunity for creating competitive advantage often comes from *new* ways of segmenting, because a firm can meet true buyer needs better than competitors or improve its relative cost position.

In searching for potential new product segments, the following questions can be usefully considered:

- Are there *other technologies or designs* to perform the required functions in the buyer's value chain?
- Could *additional* functions be performed by an enhanced product?
- By *reducing* the number of functions the product performs (and possibly lowering the price), could the needs of some buyers be better served?
- Are there *different bundles* (either narrower or broader) of products and services that could be feasibly sold as a package?

Off-price retailers are an example of a new segmentation based on reducing the number of functions the product performs. Firms such as Loehmann's eliminate costly services such as credit and returns while selling through spartan outlets without extensive dressing rooms or sales help. This stripped down value chain, without many traditional value activities, has created an entirely new segment. A similar process is occurring in the hotel/motel industry, where budget chains such as La Quinta are selling rooms without other services such as restaurants and bars, and other chains are combining services in new ways.

The possibility of employing new channels also frequently exists. Firms can sell direct where the norm has been to use agents or distributors or employ new types of distributors or retailers. Timex did this in watches, and Avon did it in cosmetics. Any feasible channel is a potential segment.

In identifying new geographic and buyer segments, creativity is often required in two areas. The first is finding important new ways that geography or buyers can be divided to reflect structural or value chain differences. As discussed earlier, Stouffer's discovered important differences in purchase criteria for frozen entrees by isolating single households and households with two working parents. The second area for creativity in geographic or buyer segmentation is in identifying potential *new* buyer types or geographic areas not presently being served by the industry. Sometimes reaching a new buyer type or geographic area will require product modifications, while in other cases it just requires that a firm gain a better understanding of its buyers' needs and potential new applications for its product. For example, Arm & Hammer baking soda found a large market in deodorizing refrigerators, and Johnson & Johnson Baby Shampoo proved popular with adults. No product change was required for reaching either new buyer group.

### The Industry Segmentation Matrix

Having identified the relevant segmentation variables with structural or value chain implications, the next task is to combine them into an overall segmentation of the industry. The task is usually difficult because there are many relevant segmentation variables—in some industries there can be dozens. The challenge is to distill these variables into the most meaningful segments for developing competitive strategy.

The first step in the distillation process is to apply a significance

test to each segmentation variable. Only those variables with a truly *significant* impact on the sources of competitive advantage or industry structure should be isolated for strategic analysis. Other less important, though still meaningful, segmentation variables that are identified can be used for fine tuning in marketing or operations management.

The basic tool for translating the remaining variables into a segmentation is the *industry segmentation matrix*. A simple segmentation matrix based on two segmentation variables is shown in Figure 7-3, illustrating the oil field equipment industry in which the size of the buyer oil company and the stage of development of the country in which the buyer is headquartered have been identified as the two segmentation variables.

The first practical problem in constructing a segmentation matrix is choosing the number of categories of each segmentation variable to select. In Figure 7-3 I have chosen three discrete categories of buyer size and two categories of a country's stage of development. In reality, buyer size is a continuous variable and country development goes through many stages. The way in which each segmentation variable is broken into discrete categories should reflect the categories that capture the most significant structural or value chain differences, balanced against the practical need to limit the number of segments to a manageable number. Deciding on the best discrete categories for strategic purposes almost always requires judgment and is an iterative process.

The cells in Figure 7-3 are the individual segments in the industry. It may well be that some of the cells are presently unoccupied. In

		BUYER TYPE		
		Major Oil Companies	Large Independents	Small Independents
GEOGRAPHIC LOCATION	Developed Countries			
	Developing Countries		Null	Null

Figure 7-3. A Simple Industry Segmentation Matrix for an Oil Field Equipment Industry

addition, if there were no small independent oil companies based in developing countries and not likely ever to be any, this segment would be a null cell. For purposes of illustration, Figure 7-3 shows null cells involving both large and small independents. Segments can often be eliminated from consideration if they are null cells. However, it is important to remember that null cells should be *infeasible* combinations of the segmentation variables and not merely cells in which no firm is currently operating. Feasible cells where no firm is operating represent a potential opportunity and it is important that such segments be highlighted, not eliminated, in segmentation.

Figure 7-3 portrays a case where there are two relevant segmentation variables. In practice, there may be many variables grouped under the four broad categories of product, buyer type, channel, and geography. Looked at closely, most industries are quite heterogeneous. With many significant segmentation variables, the number of segmentation matrices that could be plotted multiplies rapidly. The problem, then, is to convert the segmentation variables into a small number of segmentation matrices that will be most illuminating for the strategy formulation process.

#### Relationships Among Segmentation Variables

To move from a number of segmentation variables to the most meaningful segmentation matrices, the first step is to probe the relationships among the segmentation variables. The number of important segmentation variables can be reduced by collapsing segmentation variables together that are correlated, or which effectively measure the same thing. For example, geographic location may be associated with a particular buyer type (e.g., automobile companies are located in the Midwest), or buyer type may be closely related to channel (small roofing contractors are all served through distributors). Constructing a segmentation matrix with correlated segmentation variables will produce a matrix in which many cells are null.

Segmentation variables that are highly correlated can be combined, because one variable is a surrogate for the effect of the other. In less extreme cases, the correlation among segmentation variables is partial, but allows a significant reduction in the number of possible segments because many cells in the matrix are null. It is important to identify all the relationships among the segmentation variables and use this to combine variables together and identify null cells.

It is also important to understand *why* variables are related, because this will often have important ramifications. If one variable is not a good surrogate for another but rather a reflection of current firm behavior or happenstance, combining variables is a mistake. It will obscure unoccupied segments that may represent an unexploited opportunity. For example, if small roofing contractors were served through distributors not for economic reasons but for historical reasons, then eliminating direct sale to small contractors as a segment would be a mistake. Telemarketing or remote order entry by salespersons with portable computer terminals might make the segment feasible though it had not been previously.

#### Combining Segmentation Matrices

The significant and independent segmentation variables that remain after the process described above represent the potential axes for industry segmentation matrices. Where there are more than two segmentation variables, the industry segmentation matrix will no longer fit on a two-dimensional page. One way of proceeding is to construct a number of different segmentation matrices for each pair of variables. Each of these matrices can then be analyzed for its strategic implications. This approach is not fully satisfactory, however, because meaningful segments may be the result of combining more than two segmentation variables and may be overlooked.

To deal with more than two segmentation variables, it is usually useful to create *combined* segmentation matrices. The process is illustrated in Figure 7-4. In oil field equipment there are at least two other relevant buyer segmentation variables besides buyer type and geographic buyer location: the technological sophistication of the oil company and its ownership. In Figure 7-4, I have plotted the four variables in pairs and then combined the two segmentations together after eliminating null cells.

The process of combining matrices not only reduces the number of segments by eliminating some null cells, but also exposes correlations among variables that may have been missed. In Figure 7-4, I have noted the null cells representing infeasible combinations. Combining matrices is usually best done by combining all segmentation variables within a category first. In Figure 7-4, for example, I have combined all the buyer segmentation variables together.

After combining segmentation variables of the same broad cate-

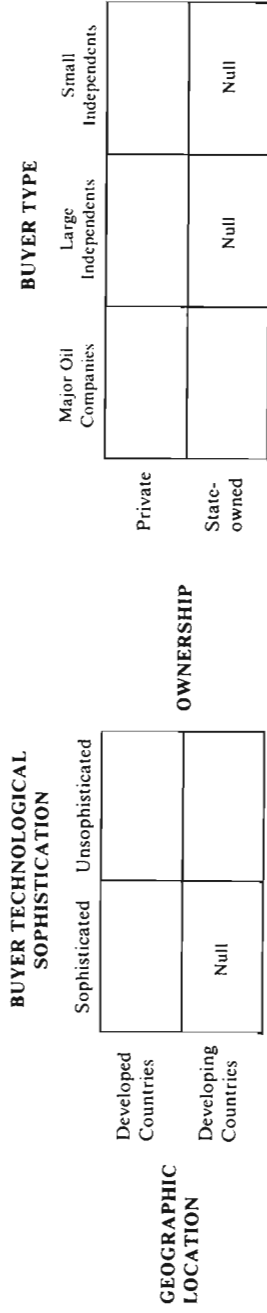


Figure 7-4. Combined Segmentation Matrix for an Oil Field Equipment Industry

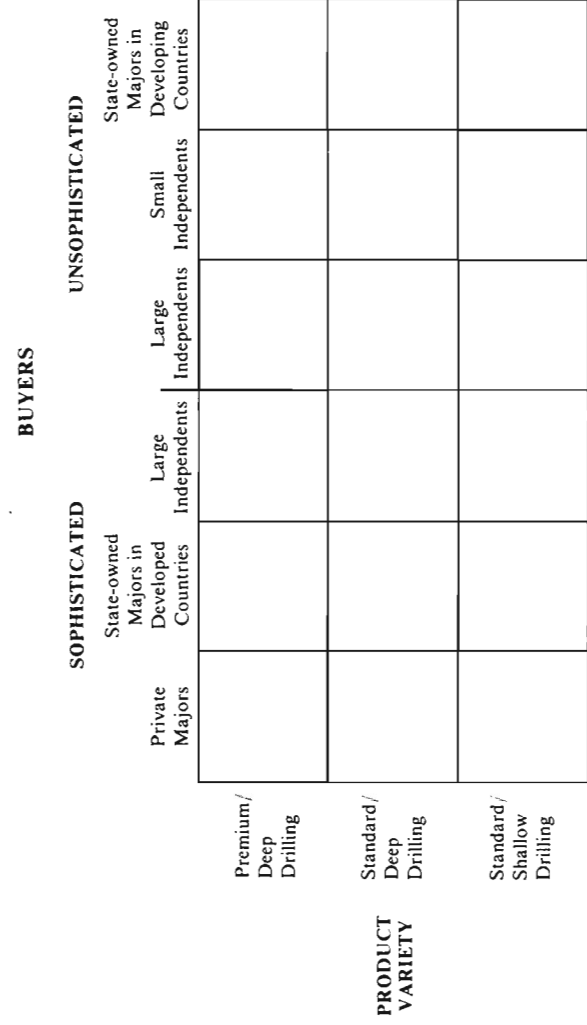


Figure 7-5. Illustrative Industry Segmentation Matrix for an Oil Field Equipment Industry

gory, one proceeds to combine variables in different categories. In doing so, it is usually best to create a segmentation matrix in which one axis reflects the combined *product* segmentation variables and the other axis combines all the *buyer-related* variables (buyer type, channel, geography). Where the number of segmentation variables is manageable, it is possible using this procedure to construct one two-dimensional industry segmentation matrix. This matrix may be quite large, but has the advantage of displaying the entire industry in a way that facilitates strategic analysis. Figure 7-5 shows such a matrix for oil field equipment, after adding to the segmentation two product segmentation variables—premium versus standard quality products, and products with ratings for deep versus shallow drilling.

Sometimes the number of relevant segmentation variables and resulting segments is so great as to make a single matrix unwieldy. The presence of a very large overall segmentation matrix should prompt the reexamination of the segmentation variables and the discrete categories of each to ensure that the differences are truly significant. Where this is the case, it may be desirable to use two or three segmentation matrices in subsequent analysis to avoid missing important strategic implications.

The industry segmentation matrix should contain potential segments and not just segments that are currently occupied. Potential segments may imply entirely new segmentation variables (e.g., channel is added because there is the possibility that some direct sales may be possible in the future instead of handling all sales through distributors) or new discrete categories of existing variables (e.g., a new performance rating for an alloy).

A segmentation matrix is an analytical tool, not an end in itself. The analyst should start with the longest list of segmentation variables to avoid overlooking possibilities. Only over the course of the analysis are variables combined or eliminated and the working segmentation matrix refined. The whole process usually involves trying a number of different segmentation schemes in which the product and buyer differences that are most important for industry structure are gradually exposed.

A segmentation matrix should be tested by examining the strategies of competitors. If the scope of competitors' activities is plotted on the matrix, new segments or segmentation variables may be exposed. Conversely, competitors' activities may draw attention to segments that must inevitably be served together. I will have more to say about this below when interrelationships among segments are discussed. Figure 7-6 summarizes the steps required in industry segmentation.

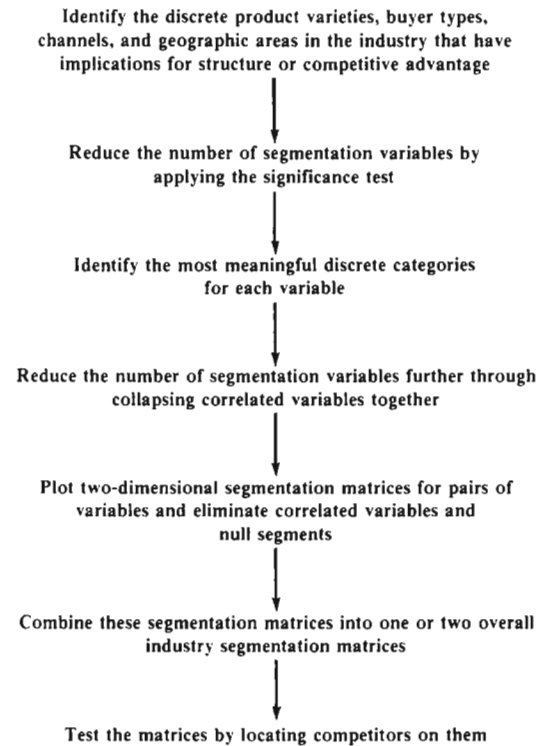


Figure 7-6. The Industry Segmentation Process

### Industry Segmentation and Competitive Strategy

Industry segments differ in their attractiveness and the sources of competitive advantage for competing in them. The key strategic questions that arise out of segmentation are:

- where in the industry a firm should compete (*segment scope*)
- how its strategy should reflect this segmentation

A firm can adopt a broadly-targeted strategy that addresses many segments, or exclusively address a small number of segments in a focus strategy. A broadly-targeted firm must also be aware of the vulnerabilities it faces because segments have structural differences, just as a focused firm must recognize and deal with the threat of

broadly-targeted firms competing in its segment or segments together with others. Segmentation is also dynamic and must change to reflect structural changes.

#### The Attractiveness of a Segment

The first issue in deciding where to compete in an industry is the attractiveness of the various segments. The attractiveness of a segment is a function of its structural attractiveness, its size and growth, and the match between a firm's capabilities and the segment's needs.

#### STRUCTURAL ATTRACTIVENESS

The structural attractiveness of a segment is a function of the strength of the five competitive forces at the segment level. The analysis of the five forces at the segment level is somewhat different than at the industry level. In a segment, potential entrants include firms serving other segments, as well as firms not presently in the industry. Substitutes for the product variety in a segment are often other product varieties in the industry, as well as products produced by other industries. Rivalry in a segment involves both firms focusing exclusively on the segment and firms that serve other segments well. Buyer and supplier power tend to be more segment-specific, but may well be influenced by buyer purchases in other segments or supplier sales to other segments. Thus the structural analysis of a segment is usually influenced heavily by conditions in other segments, more so than the structural analysis of an industry is affected by other industries.

The segments in an industry will often differ widely in structural attractiveness. In large turbine generators, for example, the segment consisting of large-capacity generators sold to large, privately-owned utilities is structurally attractive. Large-capacity generators are very sophisticated technologically and the scale and learning curve barriers to developing and producing them are high. Large units also offer many more opportunities for differentiation than smaller units. Greater thermal efficiency of large units creates lower costs of use for buyers, reducing buyer price sensitivity. Large utilities also tend to be more technologically sophisticated buyers and appreciate more features, enhancing competitors' ability to differentiate themselves. Large utilities also command the financial resources to be less price sensitive. Finally,

the selling process to private utilities involves secret negotiations rather than public bidding in which the lowest qualified bid must be selected.

Analyzing the attractiveness of each segment is an important first step in deciding where to compete. As a test of the analysis, it is often quite illuminating to compute a firm's profitability in the various segments in which it competes and to compare this to both the structural analysis and any industry profitability data by segment that are available. Focused competitors may provide data on the profitability of the segments they occupy, for example. Differences in profitability by segment can be truly striking. Existing segment profitability is not necessarily an indication of potential profitability, however, because a firm may not be optimizing its strategy for each segment or, for that matter, for any segment.

#### SEGMENT SIZE AND GROWTH

Segments will frequently differ in their absolute size and growth rate. Size and growth will be important in their own right to the choice of where to compete. Size and growth also have an impact on structural attractiveness. The expected growth rate of each segment is important to rivalry and to the threat of entry, while size may affect the attractiveness of a segment to large competitors. Sometimes firms can sustain a position in smaller segments because large firms are not interested in them.

Determining the size and expected growth of segments is typically not easy. Data are hardly ever collected in ways that exactly match meaningful segment boundaries, especially segments determined by demand and cost considerations rather than industry convention. Hence a firm may need to invest in special data collection or market research to produce estimates of size and growth by segment.

#### FIRM POSITION VIS-À-VIS A SEGMENT

A firm's resources and skills, reflected in its value chain, will usually be better suited to some segments than others, influencing the attractiveness of a segment for a particular firm. Each segment will have somewhat different requirements for competitive advantage that are highlighted in constructing the segmentation matrix. The tools described in Chapters 3 and 4 can be used to determine a firm's relative position for competing in various segments and the possibilities for changing it.

## Segment Interrelationships

Segments are often related in ways that have an important effect on the segments in which a firm wants to compete. Segments are related where activities in the value chain can be shared in competing in them—I call such opportunities *segment interrelationships*. There are often many opportunities to share value activities among segments. For example, the same sales force can sell to different buyer types, or the same manufacturing facilities can produce different product varieties.

Figures 7-7 and 7-8 illustrate a typical situation where interrelated value chains serve two segments. Strongly related segments are those where the shared value activities represent a significant fraction of total cost or have an important impact on differentiation. Segment interrelationships are analogous to interrelationships among business units competing in related industries. Segment interrelationships are within an industry, however, while interrelationships among business units are between industries.<sup>10</sup> Similarly, segment interrelationships are analogous to interrelationships involved in competing in different geographic areas.

The analysis of interrelationships is treated in detail in Chapter 9, where I focus on interrelationships among business units. The same concepts apply here, and I will summarize them briefly. Interrelationships among segments are strategically important where the benefits of sharing value activities exceed the cost of sharing. Sharing value activities leads to the greatest benefit if the cost of a value activity is subject to significant economies of scale or learning, or sharing allows a firm to improve the pattern of capacity utilization of the value activity. Economies of scale or learning in a value activity imply that sharing across segments may yield a cost advantage relative to single-segment competitors. Sharing activities among segments is also beneficial where it increases differentiation in the value activity or lowers the cost of differentiation. Sharing a value activity is most important to differentiation where the value activity has a significant impact on differentiation and sharing allows a significant improvement in uniqueness or a significant reduction in the cost of providing it. The firm with a shared service organization across segments, for example, will gain an advantage over the single segment competitor if service is vital to differentiation and sharing lowers the cost of hiring better service

<sup>10</sup>The strength of interrelationships within an industry and between industries determine the boundaries of strategically distinct industries.

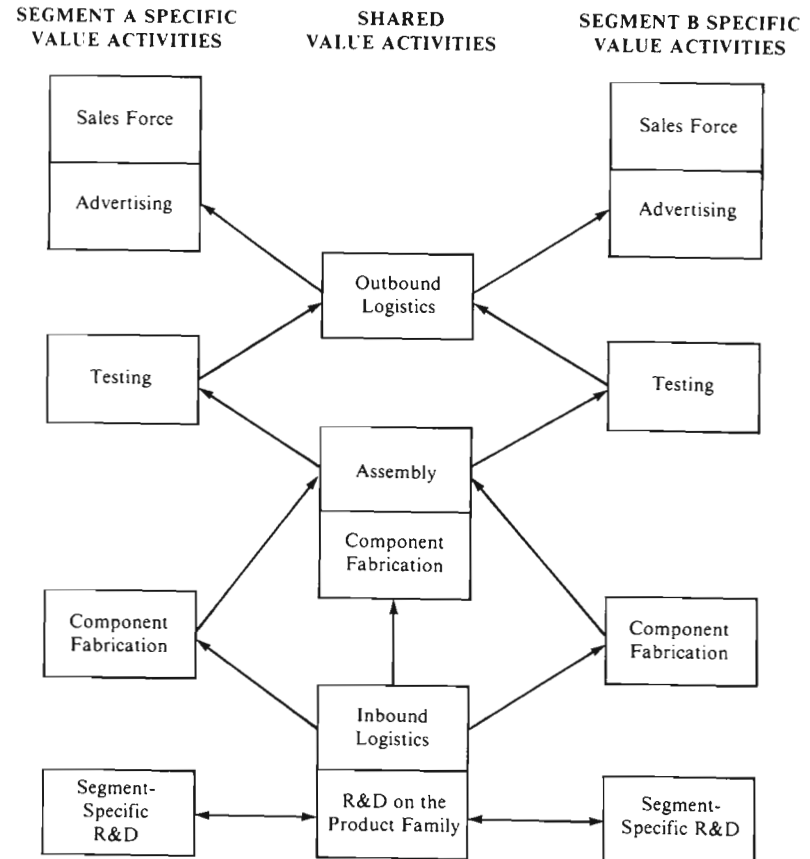


Figure 7-7. Interrelated Value Chains for Different Segments

personnel. Sharing a brand name across segments is also often a source of differentiation.

The benefits of interrelationships among segments are offset by costs of *coordination*, *compromise*, and *inflexibility* in jointly serving segments with shared activities. Coordination costs simply reflect the greater complexity of operating in multiple segments with shared value activities. Compromise costs occur when the value chain designed to serve one segment is not optimal in serving another segment, and serving both undermines a firm's ability to serve either. For example, the brand name, advertising, and image appropriate to a premium product may be inconsistent with the needs of a low-end product variety or vice versa. Here a firm has to create and advertise two

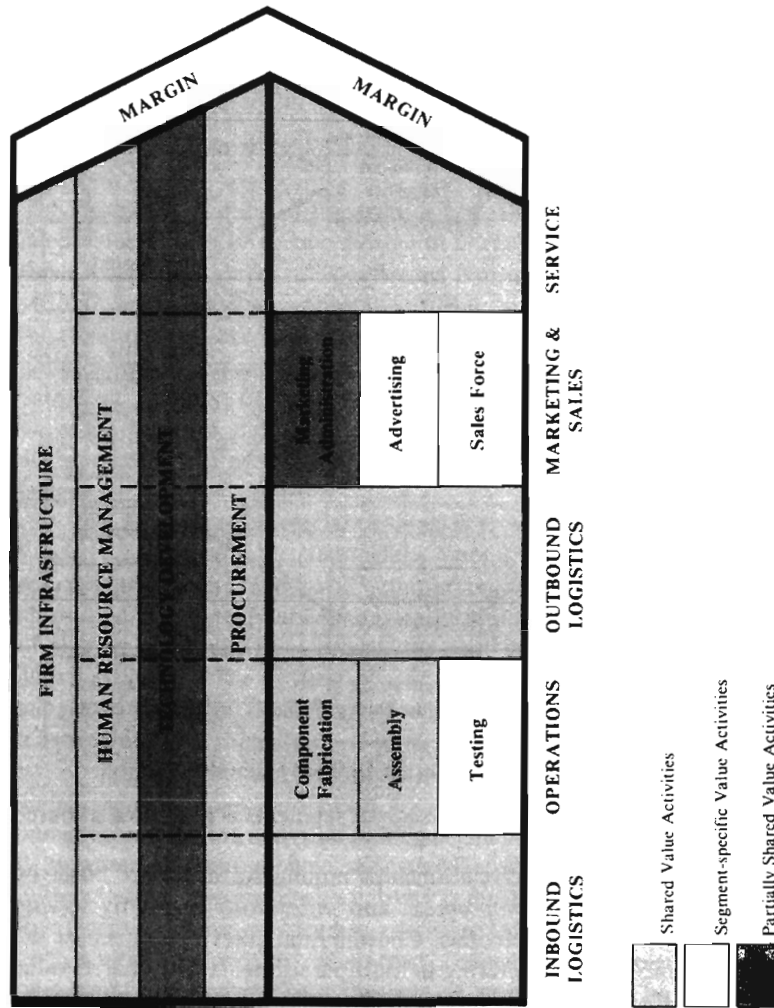


Figure 7-8. Segment Interrelationships Displayed on the Value Chain

separate brand names if it wants to operate in both segments. K. Hattori, for example, uses the Seiko name for higher-priced watches, and the Pulsar name for medium-priced watches. Even then, retailers often tell customers that a Pulsar is really a Seiko.

A less extreme form of compromise cost is where the optimal value chain for serving one segment is somewhat different from the optimal value chain for serving another, but the same chain will serve both at some penalty in cost or differentiation. For example, a sales force selling to two buyer segments may not be as effective as a sales force specializing in one, or a manufacturing process with the flexibility to produce two product varieties may not be as efficient as one that is designed to produce one.

*Segment spillover* is a form of compromise that occurs when a firm tries to serve multiple segments. Buyers in one segment may demand the same terms as buyers in another. For example, the prices charged in one buyer segment may spill over to other segments because buyers demand equal treatment, a problem a single segment competitor does not have. Because the bases for segmentation include differences in the optimal value chain, the need to compromise in jointly serving segments is quite prevalent.

The need to compromise in jointly serving segments can partially or completely nullify the ability of a firm to gain competitive advantage from sharing value activities among segments. The firm is thus forced to trade the cost of creating parallel value activities to serve different segments (e.g., a separate production process or a different brand name) against the cost of compromise. In extreme cases, the compromise required to serve multiple segments goes beyond nullifying the advantages of sharing value activities and creates disadvantages. Because of major inconsistencies in such areas as brand image or production process, for example, competing in one segment can make it very difficult to operate in another segment even with a completely separate value chain.

The final cost of sharing activities among segments is the cost of inflexibility. Sharing value activities limits the flexibility of modifying strategies in the different segments, and may create exit barriers in leaving a segment. The cost of inflexibility, as well as the other costs of sharing, are discussed extensively in Chapter 9.

The net competitive advantage of competing in multiple segments versus focusing on one or a few is a function of the balance between the advantages of sharing value activities and the costs. In most industries the pattern of segment interrelationships is not symmetric. Some pairs of segments have stronger interrelationships than others. A firm

may also be able to share some value activities across one group of segments and another group of value activities across another, perhaps overlapping, group of segments.

As a result of the pattern of segment interrelationships, firms often cluster in the group of segments they serve. In copiers, for example, Xerox, Kodak, and IBM have traditionally competed in high-volume copiers, while Ricoh, Savin, Canon, Minolta, and several others have served the low-volume convenience copiers. High-volume copiers are characterized by low unit manufacturing volumes, direct sales forces, and different technological issues than low-volume machines, which are mass-produced and sold through distributors. Only through having what amounts to a separate company (Fuji Xerox) has Xerox spanned the whole product range, while Canon has had to broaden its line upward painstakingly through major investments in the new value activities needed to compete in the high end. This example illustrates the point that the greater the cost of sharing activities among segments, the more the broadly-targeted firm is required to create essentially separate value chains if it is to be successful. Yet separate value chains negate the benefits of broad targeting.

A good way to test a firm's understanding of interrelationships among segments is to plot competitors on the segmentation matrix (see Figure 7-9). If all competitors in one segment also compete in another, chances are good that strong interrelationships are present. By looking at the pattern of competitors, one can often gain insight into the pattern of interrelationships.<sup>11</sup> However, competitors may

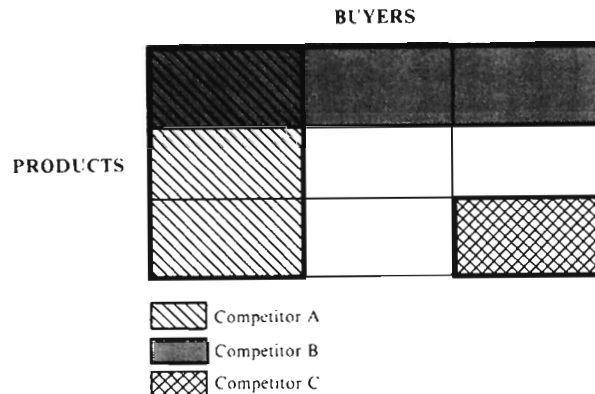


Figure 7-9. Competitor Positions on the Segmentation Matrix

<sup>11</sup>It may also be illuminating to distinguish among strong and weak positions in each segment.

well have failed to recognize or exploit all segment interrelationships.

Interrelationships among segments may suggest further collapsing of the industry segmentation matrix. Segments with very strong interrelationships can be combined if a firm cannot logically serve one without serving the other. Once a firm has entered one such segment the barriers to entering the adjacent segment are low. By examining interrelationships, therefore, an industry segmentation matrix may be simplified for strategic purposes.

#### Segment Interrelationships and Broadly-Targeted Strategies

Interrelationships among segments provide the strategic logic for broadly-targeted strategies that encompass multiple segments if they lead to a net competitive advantage. Strong interrelationships among segments define the cluster of segments a firm should serve. Strong interrelationships will also define the logical paths of mobility of firms in the industry from one segment to another. A firm competing in one segment will be most likely to enter other segments where there are strong interrelationships.

The broadly-targeted competitor bets that the gains from interrelationships among segments outweigh the costs of sharing, and designs its strategy to strengthen the interrelationships and minimize the coordination and compromise costs. Developments in manufacturing technology are working today to lower the cost of compromise in serving different product segments because of enhanced flexibility to produce different varieties in the same facility. These or other developments that increase the flexibility of value activities without a cost or differentiation penalty will work toward the benefit of broadly-targeted competitors.

A broadly-targeted competitor should usually not serve *all* industry segments, however, because the benefits of sharing value activities are nearly always outweighed in some segments by the cost of compromise. Serving all segments is also often not desirable because all segments are not structurally attractive. A broadly-targeted firm may have to serve some unattractive segments, however, because they contribute to the overall cost or differentiation of shared value activities, or to defending its position in structurally attractive segments. As will be discussed further in Chapter 14, occupying some unattractive segments may prevent a competitor from establishing beachheads in those segments from which it can build on interrelationships into the firm's segments. The gap left by U.S. automobile firms in less profitable

small cars, for example, seems to have provided the Japanese automakers with the opportunity to enter the U.S. market.

### The Choice of Focus

Focus strategies rest on *differences* among segments, either differences in the firm's optimal value chain or differences in the buyer value chain that lead to differing purchase criteria. The existence of costs of coordination, compromise, or inflexibility in serving multiple segments is the strategic underpinning of sustainable focus strategies. By optimizing its value chain for only one or a few segments, the focuser achieves cost leadership or differentiation in its segment or segments compared to more broadly-targeted firms that must compromise. Focus strategies involve the entire value chain and not just marketing activities, as in market segmentation.

Focus strategies can encompass more than one segment and encompass several segments with strong interrelationships. However, the ability of a firm to optimize for any segment is generally diminished by broadening the target. Note that a firm can focus within an industry *at the same time* as it achieves interrelationships with business units competing in other industries that do not force it to compromise in serving the target segments. The choice of competitive scope involves simultaneously understanding interrelationships at both levels (see Chapter 15).

Firms can choose different groups of segments on which to focus, which may or may not overlap. Figure 7-10 illustrates a case where a number of firms are supplying information products to financial services firms. Company A has adopted a product-based focus strategy of supplying one product variety (data bases) to all buyers. Company B, on the other hand, has adopted a buyer-based focus strategy in which it sells the full array of products to insurance companies. Company C has yet another focus strategy which concentrates exclusively on providing consulting advice to finance companies. Its buyers either acquire the data elsewhere or generate it themselves. Company C's focus strategy does not overlap with the segments served by companies A and B.<sup>12</sup>

As noted above, focus strategies involving several segments rest on the presence of strong interrelationships among the segments that outweigh the suboptimization of serving more than one. For example,

<sup>12</sup>There is no need for strategies that combine segments to be horizontal or vertical on the segmentation matrix. However, focus strategies are often horizontal or vertical because product, buyer, channel, or geographic focus strategies are common.

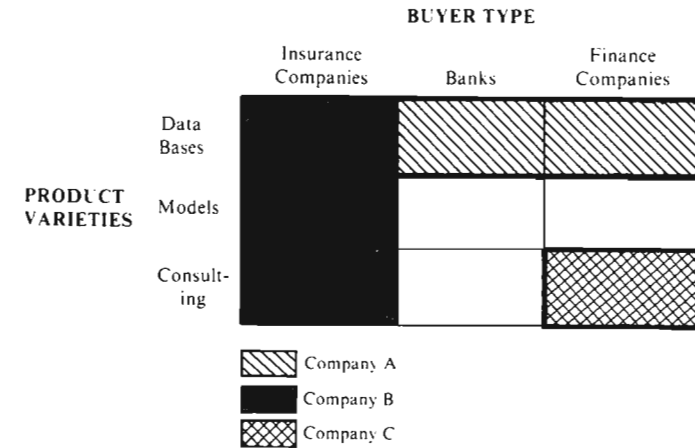


Figure 7-10. Alternative Focus Strategies in a Financial Information Industry

company A has maximized interrelationships based on shared R&D and production of only data bases, which offset the fact that each buyer type would ideally prefer a somewhat different type of data base and perhaps a different delivery system. Company B, on the other hand, has chosen a buyer-based focus strategy that gains competitive advantage through optimizing its delivery and selling system for insurance companies. Company C has opted for the potential differentiation benefits of offering only consulting to finance companies and the internal benefits of product specialization, while forgoing potential scale economies of a broader focus. Thus each company has built a focus strategy based on different interrelationships and different competitive advantages, and each bears different costs of compromise.

Interesting competitive issues arise in segments where focus strategies with different segment interrelationships overlap. In Figure 7-10 this occurs in the upper left-hand segment in the matrix. In that segment, the different focus strategies create competitive advantages and disadvantages of different types for the two firms competing in the segment. Company A brings extensive low-cost data bases and an acute understanding of data base design, while Company B brings an in-depth understanding of insurance companies and cost advantages from offering a full line. Just as interrelationships can lead to competitive advantages, they can also make a firm inflexible in competing in a segment. For example, company A could not easily modify its data base management system to better respond to the needs of insurance company buyers because of the effect this would have on its

activities with banking and finance companies. The relative position of companies A and B in an overlapping segment is a function of net competitive advantage of interrelationships with other segments. Constraints in responding that arise from interrelationships can lead to a competitive interaction in which firms try to shift competition in a segment in the direction that best exploits their own segment interrelationships or advantages, while forcing competitors to compromise theirs.

#### The Feasibility of New Segments to Focus On

The feasibility of a focus strategy in a segment depends on the size of a segment and whether it will support the cost of a tailored value chain. Even if a tailored value chain would be more responsive to the needs of a particular new segment, the costs of the tailored chain may not be recoupable. Thus many potential segments should not be served with focus strategies.

There are four ways that new segments emerge as viable for focus strategies. The first is that tailoring gets less costly. Falling economies of scale may allow a focus strategy, for example. The second reason focus on a new segment becomes viable is that the segment grows enough to overcome the fixed cost of serving it. A third reason is that firms exploit interrelationships with other industries to overcome scale thresholds in serving the segment. Finally, a segment may become viable if a firm pursues it globally, using volume in many countries to overcome scale economies. Here the firm is pursuing geographic interrelationships.

Firms can preempt new focus strategies by perceiving new segmentation schemes or by identifying opportunities to make new segments viable. Recent reductions in scale economies have occurred in some technologies, including computerized manufacturing and design. These, coupled with enhanced ability to exploit interrelationships among business units (Chapter 9) and compete globally, will be continually creating opportunities for new focus strategies in the 1980s.

#### The Sustainability of a Focus Strategy

I have discussed how a firm can choose a segment or small group of segments on which to focus, based on the attractiveness of those segments and the interrelationships among them. A final issue in choos-

ing a focus strategy is the sustainability of the focus strategy against competitors. The sustainability of a focus strategy is determined by three factors:

- *Sustainability against broadly-targeted competitors.* The size and sustainability of the competitive advantage created through focus vis-à-vis more broadly-targeted competitors.
- *Sustainability against imitators.* The mobility barriers to imitating the focus strategy or being outfocused by a competitor with an even narrower target.
- *Sustainability against segment substitution.* The risk that buyers will be drawn away to other segments the focuser does not serve.

#### SUSTAINABILITY AGAINST BROADLY-TARGETED COMPETITORS

Broadly-targeted competitors may either already compete in a focuser's segment or be potential entrants to the segment as an extension of their existing base in other segments. The focuser's competitive advantage over a more broadly-targeted competitor is a function of:

- the degree of compromise a broadly-targeted competitor faces in serving the focuser's segments and other segments at the same time
- the competitive advantage of sharing value activities with other segments in which the broadly-targeted competitor operates

The more *different* the focuser's value chain is from the value chain required to serve other segments, the more sustainable is the focus strategy. In the airconditioning industry in the United States and Europe, for example, the distribution channels that serve the residential and commercial market are separate from those that serve the industrial market. In Latin America, Asia, and the Middle East, however, the same channels tend to stock the whole line. A focus strategy has been much more successful and sustainable in the United States and Europe than in other parts of the world, because focusers can tailor the value chain to the channel that specializes in their target segment. The focus strategy is more sustainable as buyer needs in the target segment are more *different* and *unusual* vis-à-vis other segments.

The problems of Royal Crown in the soft drink industry illustrate these principles. Royal Crown focuses on colas, unlike Coke and Pepsi,

which supply a broader line of soft drink flavors. Supplying only colas does not involve a significantly different value chain than supplying a broad line. Buyer needs and purchasing behavior are not much different for colas than for other flavors except for the flavor preference. Conversely, supplying a broad line allows significant benefits of sharing activities in production, distribution, and marketing. Hence Royal Crown's focus strategy leads to no competitive advantage against its broadly-targeted competitors, only disadvantages. On the other hand, Mercedes gains strong advantages through focus in automobiles by using a tailored value chain compared to its broad-line competitors.

Mead's strategic evolution in the paper container industry illustrates how the factors underlying the sustainability of a focus strategy can change. In response to intense cost competition in high volume containers in the late 1970's, Mead chose a focus strategy targeted at low volume, high value-added segments. In the early 1980's, however, new continuous-run paper corrugators were developed that operated faster but at the same time required much less setup time. This made it increasingly possible for broad line competitors to service small orders economically. Mead was forced to modify its focus strategy and serve a broader range of segments while investing in the new equipment. In this case, the value chain required to serve Mead's target segments became less different from that required to efficiently serve the high volume segments.

The sustainability of a focus strategy will erode if a segment's differences from others fall over time, if technological change reduces the cost of compromise in serving multiple segments or increases the ability to reap interrelationships (see Chapter 9), or if a tailored value chain for the segment becomes too expensive relative to a more standardized chain. Hence there is an important dynamic element in choosing the segments on which to focus, reflecting an ongoing tradeoff between the advantages of focus on a particular segment and the gains of sharing through competing in multiple segments.

#### SUSTAINABILITY AGAINST IMITATORS

The second type of risk facing a focuser is that another firm will choose to replicate the focus strategy, either a firm new to the industry or one dissatisfied with its existing strategy. The sustainability of a focus strategy against imitators is based on the sustainability of the competitive advantage a focuser possesses, analyzed using the concepts in Chapters 3 and 4. The mobility barriers to imitating a focus

strategy are the scale economies, differentiation, channel loyalty, and/or other barriers unique to the focus strategy. The height of the barriers against imitation of a focus strategy thus depends on the structure of the particular segment. Imitating Kodak's high-end focus in copiers, for example, requires that a firm overcome barriers due to proprietary technology as well as economies of scale in establishing an in-house sales and service network.

The size of a segment can affect the threat of imitation of a focus strategy. In a small segment, even modest scale economies may be significant relative to segment size if they cannot be offset by interrelationships, and competitors may not be interested in entering. Conversely, in a growing industry there is the continual possibility not only that a focus strategy will be imitated but also that a focuser will be "outfocused" as ever-narrower segments become viable. In the rapidly growing information industry, for example, outfocusing is pervasive as firms develop ever more specialized data bases for narrower target buyer groups.

#### SUSTAINABILITY AGAINST SEGMENT SUBSTITUTION

The final determinant of the sustainability of a focus strategy is the risk of segment substitution. A focus strategy concentrating on a segment is vulnerable to the disappearance of that segment. This may be the result of changes in the environment, technology, or competitor behavior. The risk of segment substitution is analyzed in the same way as substitution in general (see Chapter 8). Segment substitution can be influenced by competitors just as industry-level substitution can—if anything, even more so. Competitors often attempt to shift demand away from a focuser's segments through techniques such as marketing, technological innovation, or even lobbying for government standards that worsen conditions in the segment. Where a focuser faces competitors serving much larger segments, there is a risk that their advertising spending and other marketing may shape buyer attitudes and lead buyers away from the focuser's segment.

#### Pitfalls and Opportunities for Focusers and Broadly-Targeted Competitors

Several important lessons emerge from this analysis both for focusers and for broadly-targeted competitors:

*Successful focus strategies must involve compromise costs for competitors.* Focusing on a segment or group of segments is not sufficient to achieve competitive advantage in and of itself. The chosen segments must involve buyers with different needs, or require a value chain that differs from that which serves other segments. It is differences between the focuser's segment and other segments that lead to suboptimization by broadly-targeted competitors, and provide the source of a sustainable competitive advantage for the focuser.

*Identifying a new way of segmenting an industry can be a major opportunity.* A properly constructed industry segmentation matrix will often expose segments that are not reflected in the behavior of existing competitors. By identifying a new way of segmenting the industry, a firm can often design a focus strategy around a product variety, buyer group, channel, or geographic subdivision that has not previously been recognized as a segment but that has structural or value chain differences. New segments can be narrower or broader than segments currently recognized. Its differences imply that the new segment needs a distinctive strategy and value chain, and that competitors serving it together with other segments will be suboptimizing.

The firm that recognizes a meaningful new segmentation first can often gain a sustainable competitive advantage preemptively. Federal Express, for example, saw the small parcel requiring overnight delivery as a segment that no firm had focused on before. Federal Express designed a strategy around this segment involving a reconfigured value chain, and gained enormous advantages over competitors who were serving it as part of broader strategies. Similarly, Century 21 was first to recognize a broader nationwide segment in real estate brokerage.

*Broad targeting does not necessarily lead to competitive advantage where there are industry segments.* A broadly-targeted competitor must gain sustainable competitive advantage from competing in multiple segments if it is to enjoy above-average returns. These competitive advantages usually come from the interrelationships among segments. A cost leadership strategy rests on achieving a low-cost position through the scale and other advantages of competing in many segments. A differentiation strategy is based on achieving uniqueness in meeting use or signaling criteria that are widely valued by many segments. Without some tangible competitive advantage from breadth, the struc-

tural differences among segments will usually guarantee that a broadly-targeted competitor will be "stuck in the middle."

*Broadly-targeted firms often serve too many segments.* A firm aiming at an overly broad strategic target runs the risk of suboptimization, increasing its vulnerability to focusers. Reducing the number of segments served may decrease vulnerability, as well as increase profitability through eliminating unattractive segments. A broadly-targeted firm should consider dropping out of segments where:

- it gains little advantages from interrelationships with other segments
- it is forced to modify its entire strategy in order to serve the segment
- the segment is structurally unattractive
- sales and growth potential in the segment is limited
- defensive considerations do not require presence in the segment to block competitors

*The relevant segments and breadth of target must be continually examined.* The strategically meaningful segments in an industry will evolve over time due to shifts in buyer behavior, the emergence of new buyer groups, and technology that alters segment interrelationships. Thus the choice competitive scope within an industry must be continually reexamined. A firm cannot automatically accept a historically important segmentation as meaningful, despite the fact that old segmentations have a tendency to fade slowly from managers' minds. Viewing the choice of segments served as a permanent decision will inevitably bring strategic disaster.

*New technology is changing old assumptions about segmentation.* New technology, particularly microelectronics and information systems, is creating opportunities for both new focus and new broadly-targeted strategies. Flexibility in manufacturing, logistics, and other value activities is making it possible for broadly-targeted firms to tailor activities to segments while maintaining a single value chain. This is reducing opportunities for sustainable focus in some industries. At the same time, the same technological revolution is making strategies tailored to new segments viable. Computer-aided design, for example, is lowering the design cost of new product varieties. Firms must pay

particular attention to how the new technologies might shake up the traditional logic of focus or broad targeting in their industries.

### Industry Segmentation and Industry Definition

Drawing industry boundaries is always a matter of degree. Structural and value chain differences among product varieties and buyers work towards a narrower industry definition. Industry segmentation is thus a tool to probe for narrower industry definitions by exposing structural heterogeneity within an industry. Interrelationships among segments and business units (Chapter 9) create possibilities for broader industry definitions.

A useful working industry definition should encompass all segments for which segment interrelationships are very strong. Segments where interrelationships with other segments are weak may sometimes be separate industries from a strategic viewpoint. Related industries linked by strong interrelationships may in strategic terms be a single industry.

Where one actually chooses to draw industry boundaries is not so essential as long as both segmentation and strategic interrelationships are examined as part of structural analysis. Such an analysis will expose all the key determinants of competitive advantage that derive from competitive scope.

## 8 Substitution

All industries face the threat of substitution. Substitution is the process by which one product or service supplants another in performing a particular function or functions for a buyer. The analysis of substitution applies equally to products and processes, because the same principles govern a buyer's choice to do something in a new way anywhere in its value chain. Substitution is one of the five competitive forces determining the profitability of an industry, because the threat of substitution places a ceiling on industry prices. At the same time, substitution plays a prominent role in determining industry and a firm's demand. Penetration against substitutes is a major reason why industries and firms grow, and the emergence of substitutes is a major reason why they decline. Substitution is also inextricably tied to a firm's competitive scope within an industry, because it widens or narrows the range of segments in an industry.

How can a firm best defend against a substitute? What is the best strategy for promoting substitution if the firm is on the offensive? These are important questions in competitive strategy in many industries. This chapter will present a framework for analyzing substitution