- The company is too small to go after the heavy-user segment that accounts for a large share of the market, or
- The company wants to develop a humorous or creative promotion program or build a "personality" for its brand for *all* usage groups.

In simple segmentation studies, often only usage rates and/or demographics are used as basis variables. This usually makes the selection of a target segment relatively easy (i.e., heavy users). But the opposite is more often true in the case of studies in which multiple basis variables are available. In such cases, there is no easy answer. Much depends on the outcome of each analysis and the ability of a company to implement the various findings. This matter is discussed in greater detail subsequently (see "Requirements for Effective Segmentation").

In larger studies in which many different types of variables are included, researchers sometimes develop segments based on 2, 3, or even more different *types* of basis variables *separately*. When this is done, it is often useful to cross-tabulate segment membership among the separate approaches, 2 at a time. Such cross-tabs often reveal an independence among the schemes, such that members of one segment in one scheme do not fall into any single segment in another. When there is little relationship, this adds to the complexity of selecting a suitable target segment. Segments from one scheme could be most useful for promotion purposes, another for new product planning purposes, and so on.

To underscore the value of using different types of basis variables to segment a market, Wind (1978, p. 319) states:

> In contrast to the theory of segmentation that implies that there is a single best way of segmenting a market, the range and variety of marketing decisions suggests that any attempt to use a single basis for segmentation (such as psychographics, brand preference, or product usage) for all marketing decisions may result in incorrect marketing decisions as well as a waste of resources.

Even now, many consumer products and services companies that are unsophisticated in segmentation research focus primarily or even completely on demographics (e.g., age, income). This is often the best place to start, because there is already so much published information available on demographics. And, this actually might be the best way to segment a market for a particular company or purpose. However, most companies can benefit greatly from using other types of basis variables as well, for the different perspectives they provide. For example, usage rates, or specific benefits or features desired most in a product/service category sometimes offer especially actionable basis variables for segmentation purposes.

Profile/Describe Target Segments

Once segments have been formed, each segment must be "profiled," or described as completely as possible, using other information in a questionnaire or merged data from other sources, such as internal transaction records. This can be done for selected target segments only or for *all* segments, the latter to assist in selecting a target segment that is most actionable by a company. This profiling can be done using (1) the basis variables used to form the segments, (2) demographic or other variables used to characterize individuals, households, or businesses in each segment, (3) media usage, (4) product usage rates or patterns, (5) product features desired, (6) internal transaction records, or (7) any other survey responses that could provide guidance for market planning purposes.

The Ocean Spray cranberry study recap in Table 2.1 is an excellent example of multiple profiling variables (see Modig 1974). The columns consist of four "attitude segments" based on ratings of attitude statements in a survey of cranberry users in the United States. These are profiled in terms of *seven* different types of variables, as indicated in the left-hand column.

As indicated previously, segment profiling can be done either prior to selecting a target segment, to help in the selection, or after one or more targets have been selected. When a simple segmentation scheme is used, such as heavy/light users, segment profiling usually is done after selection of the target segment. But with multiple basis variables, profiling *all segments* from each separate analysis can be of great help in defining each segment and selecting a target segment that has the best "fit" with present company offerings, offers the most opportunity, or can be reached by the media most effectively. This approach brings the greatest possible amount of information to bear on the target market selection decision, and for that reason it usually is recommended.

The most common method of profiling all segments after they have been identified is simple cross-tabulations, using segment membership as column headings (banners) and all other items in the questionnaire as rows

Table 2.1 Characteristics of Four Consumer Segments

Ocean Spray Cranberries, Inc.

Note: The % number to the right of each item shows the *difference* between the frequency count (%) for the segment and the frequency count for the total sample on the item.

Type of Measurement	Segment 1 "Convenience Oriented" $N_1 = 299$		Segment 2 "Enthusiastic Cook" $N_2 = 257$		Segment 3 "Disinterested" $N_3 = 270$		Segment 4 "Decorator" $N_4 = 178$	
	Benefit	**%**	**Benefit**	**%**	**Benefit**	**%**	**Benefit**	**%**
Key Benefits of Ideal Food Products Rated "Very Important"	Quick	4	Appropriate for holidays	4	Different taste	-1	Easy availability	12
	Goes well with turkey	4	Goes well in salads	3	Festive	-1	Appropriate for formal meals	11
	Easy to serve	3	Colorful	3			Acceptable to everyone	10
	Smooth consistency	3					Appropriate for holidays	9
							Variety of uses	9
							Available year round	9
							Festive	8
							Quick	8
							Has vitamins	8
							Sweet taste	8
	Belief	**%**	**Belief**	**%**	**Belief**	**%**	**Belief**	**%**
Key Beliefs, Rated "Agree Very Much"	Part of meal rather than garnish	20	Use whole cranberry sauce as a cooking/baking ingredient	21	Would serve more cranberry sauce if I thought of it, but I don't	1	Firmer jellied sauce is higher quality	23
	Has food value as well as attractive appearance	15	Usually keep can year round	14			Cranberry sauce is served with pork because it cuts the grease	17
	Usually keep can year round	13	Often makes own cranberry sauce when fresh berries are available	10			Usually keep can year round	17
	Traditional food	5	Often use jellied cranberry sauce as a cooking/baking ingredient	9			I serve cranberry sauce with turkey to add moistness	15
			Cranberry sauce is one of favorite foods	7			Cranberry sauce is one of favorite foods	8
							Should be served only on Thanksgiving and Christmas	5
	Characteristic	**%**	**Characteristic**	**%**	**Characteristic**	**%**	**Characteristic**	**%**
Key Life Styles Rated "Describes Me Completely"	Prefer natural foods to ones with artificial ingredients	1	Enjoy being active	9	Prefer fresh vegetables to canned or frozen products	0	I believe we are on earth to enjoy ourselves	14
			Like to cook	8			Nutrition conscious	11
			Like to cook new dishes	7			Believe in things parents believed in	10
			Enjoy taking time to prepare meals	7			Interested in food advertising	10
			Like to prepare fancy dishes	6			Gets together with family for holidays	8
			Like to prepare colorful salads	6			Prefer natural foods to ones with artificial ingredients	8
			Sociable	6			Serve children the things they like to eat	7
			Like beef on the rare side	6			Like to look for sales in the grocery store	7
							Enjoy taking time to prepare meals	7

Table 2.1 Characteristics of Four Consumer Segments *(Continued)*

Ocean Spray Cranberries, Inc.

Note: The % number to the right of each item shows the *difference* between the frequency count (%) for the segment and the frequency count for the total sample on the item.

Type of Measurement	Segment 1 "Convenience Oriented" $N_1 = 299$		Segment 2 "Enthusiastic Cook" $N_2 = 257$		Segment 3 "Disinterested" $N_3 = 270$		Segment 4 "Decorator" $N_4 = 178$	
Attitudes	See cranberry sauce as a convenient staple		High in seeing cranberry sauce as a cooking/baking ingredient		See cranberry sauce as a change of pace		See cranberry sauce as a means of sprucing up meals	
Main Attitudes	High preference of jellied form relative to whole berry							
	Attitude	**%**	**Attitude**	**%**	**Attitude**	**%**	**Attitude**	**%**
Supporting Attitudes Rated "Agree Very Much"	High rejection of whole berry	6	Low on rejection of whole berry	-16	High rejection of whole berry by adults and children	9	Low on rejection of whole berry	-3
	High brand awareness	4	Low on rejection of jellied	-4	High rejection of jellied by adults and children	7	Low on rejection of jellied	-1
	High regular brand OSC[a]	2	Low on preference of jellied over whole berry		High preference to whole berry		High on preference of jellied form relative to whole berry	
	High future OSC purchase intention	2	High in seeing OSC as costing more	-3	Low on brand awareness	-3	Low on future OSC purchase intentions	-3
	High in seeing OSC as costing more	2			Low on regular brand OSC	-2		
	Behavior	**%**	**Behavior**	**%**	**Behavior**	**%**	**Behavior**	**%**
Behavior Rated "Tend to Do Frequently"	High on eating baked/roast chicken	9	High use of whole berry with turkey	13	High consumption of pork, and fried chicken	5	Favors jellied and applesauce as accompaniments	
	High on eating leftover chicken	3	High on consumption of all meat, poultry, and fish	-1+6	Low on accompaniments, including cranberries		Low on jellied with chicken	-7
	High on eating apple-sauce as accompaniment	-2+4	High on use of 16 oz. cans	8	Low on use of 16 oz. cans	-7	High on consumption of leftover beef, leftover chicken, and broiled chicken	4–7
	High on use of cranberry sauce as meat accompaniment	-5+2	High on serving cranberry sauce on all occasions	10	High on use of cranberry sauce as a meat accompaniment only		Low on use of 16 oz. cans	-3
	High on serving cranberry sauce on all occasions, especially informal meals	3-6			Low on serving cranberry sauce on all occasions	-11	Low on using cranberry sauce on all occasions	-4
					Serve cranberry sauce at Thanksgiving and Christmas			
	Characteristic	**%**	**Characteristic**	**%**	**Characteristic**	**%**	**Characteristic**	**%**
Key Demographics	45 and older	5	40 to 64	6	18 to 39	10	65 and older	7
	Low on college	-3	High on college or more	2	High on some college	3	High on some high school or less	8
	High on U.S. as parents' country	2	High on U.K. as parents' country of origin	7	High on children living at home	11	Low on children living at home	-8
			High on upscale occupation of household head	3	High on U.S. as parents' country of origin	5	High on Germany/Austria, Italy, and Russia as parents' country of origin	3
					High on middle occupation of household head	4		
	Media	**%**	**Media**	**%**	**Media**	**%**	**Media**	**%**
Media	Buy Newspapers	2	Buy Newspapers	3	Buy Newspapers	-5	Buy Newspapers	-1
	Above average readership of:		Above average readership of:		Low on magazines		Above average readership of:	
	Ladies' Home Journal	3	*Family Circle*	8			*True Story*	4
	Reader's Digest	2	*Woman's Day*	8			*True Romance*	2
	TV Guide	2	*Better Homes & Gardens*	6			*Reader's Digest*	2
	Good Housekeeping	2	*Good Housekeeping*	5				
			McCall's	5				
			Ladies' Home Journal	5				

[a] OSC=Ocean Spray Cranberries, Inc.

(stubs). This makes comparisons among segments easy for any specific demographic or other question. For most surveys, this is all that is necessary for spotting meaningful differences among the segments. Statistical tests should be done on each variable, of course, to identify significant segment differences.

However, large surveys include so many dozens of questions and rating scales that comparisons among several segments becomes difficult. In such cases, many researchers use a technique called *linear discriminant analysis*, which is designed specifically to identify only questions or ratings that distinguish among the segments. This focuses attention on items that best *characterize* each of the several segments, and this is usually exactly what an analyst wants. Researchers with good analytical training or experience should consider using discriminant analysis for more efficient and precise segment profiling in addition to using cross-tabulations.

Develop a Marketing Mix

Once target segments have been selected and profiled, they clearly need a different marketing mix than other segments in the market. If the survey has been designed well, information is available indicating what kind of *product/service* the target segment wants, *price* ranges or sensitivity, *advertising and promotion* approaches that are likely to be most effective, and perhaps even preferred *channels of distribution.*

Not all segmentation studies are designed to provide all this information, nor is it needed for simple segmentation objectives and studies. However, some segmentation efforts are very ambitious and yield almost an overload of information. A good example of this is the Ocean Spray study shown in Table 2.1. A summary table for this study showed differences among attitude segments in terms of many types of information collected in the same questionnaire, such as demographics, media usage, lifestyles, key product benefits desired, and cooking behavior.

REQUIREMENTS FOR EFFECTIVE SEGMENTATION

Deciding on the most promising target segment is always easier if objectives have been stated clearly in advance. Even in this event, however, there could be some alternatives that appear interesting. Perhaps one segment lends itself better to advertising themes or copy platforms, another requires new or modified products or services, or another responds to price-related "unbundling." Multiple objectives in segmentation studies are not necessarily incompatible. This means that a carefully designed segmentation study often can be useful in several ways.

Target Segment Criteria

Regardless of the objectives or technologies employed, any target segment selected must meet several criteria for a company to be able to use it. It must be of sufficient *size* to justify the expenditure for marketing efforts required to serve it. It also must be clearly *distinguishable* from other segments and the population at large. It must be *accessible* to the company's normal promotion and distribution methods. And finally, it normally should be *compatible* with the company's resources and expertise (see Kotler 1992). (Although large companies always can gain this expertise through acquisitions.)

Sometimes very promising segments must be rejected because they do not meet one or more of these criteria. For example, one well-known consumer packaged goods company did a large study to segment the beverage market, hoping to find unmet needs that would lead to several new types of beverage products. This study did identify a large group of respondents who wanted more stimulation and "pick-me-up" than they were getting from existing beverages. However, the company decided against introducing a more stimulating drink into the market, primarily because it knew it would wind up competing against both Coke and Pepsi. The company was nowhere near ready for this. (This unmet need was addressed subsequently by three cola beverages introduced by much smaller companies: Jolt, Zap, and Bang! More recently, Pepsi A.M. has entered this market, and Coca Cola also has an entry.)

How Many Segments?

One question that often arises is how many segments can be addressed profitably by a company with separate marketing programs. Of course, this depends in part on the size of a company. Large companies usually can operate in more markets than smaller ones, but is it wise for them

to do so? Should they concentrate their efforts in one or two segments? The answer depends on many factors, including company objectives, the competition, market requirements, and company resources.

However, it should be noted that even large companies can have difficulty serving more than a single target segment with a given brand or corporate name. For one thing, a great deal of effort is required to develop a marketing program for any specific segment. Even if nothing changes except the advertising (as is often the case when segmentation is based on consumer attitudes), considerable time and expense are required to develop, test, and implement a campaign that will have an impact on the chosen target market.

But perhaps the biggest problem is the probability of conflicting representations by a company trying to reach 2 or more target segments with the same product or brand. This usually leads to inconsistencies in communications and a weak "position" in the minds of consumers. For example, should Sunkist lemons appeal to both a "nutrition" segment and a "gourmet cook" segment at the same time, or even sequentially? Should a bank or supermarket develop separate marketing programs or packages for all age or income segments? Probably not, though there may be companies that have the resources and talent to operate in several segments of a total market.

One way out of this dilemma is by line extensions and product modifications, when possible, or even building an altogether new brand platform. Each targets a different segment that has its own set of needs, which a particular product/service is designed to serve. This might be the purest form of effective segmentation, because it starts with an entirely separate offering designed to fill a specific need and then builds a marketing program around it. Line extensions in food and beverage products usually include offerings that differ in flavors, package sizes, calorie content, nutritional ingredients, or fat content. Each of these can target a different segment under the same brand name (e.g., Campbell's Chunky Soups, Diet Coke, Kraft "Lite" cheeses). An even better approach in some categories could be to design entirely new products and/or services for each needs-based market segment, when feasible.

TWO TYPES OF BASIS VARIABLES

Many different types of basis variables are employed throughout this book (e.g., demographics, usage rates, product/ service attribute ratings,

values, needs, attitude statements). However, an important distinction must be made between two general types of basis variables:

- *Dependent* variables are those that must be explained or understood. They are desired outcomes of especial interest.
- *Independent* variables are used to explain or predict the dependent variables. They therefore provide "diagnostics" to indicate factors that are likely to affect the outcome.

Examples of variables more frequently used as dependent variables include usage rates, overall satisfaction ratings, choice among competing brands, and frequency of store visits. These are the desired outcomes we want to explain or understand, and we need to know what factors relate to or "drive" them.

The most commonly used independent variables are demographics and self-explicated attribute importances in consumer marketing and size, geographic area, and SIC (Standard Industrial Classification) codes in business-to-business marketing. However, many others are used as independent variables as well in consumer marketing: media usage, derived attribute importances, attitudes toward a product/service category, product/service attribute performance ratings, and usage patterns, for example. In large-scale consumer studies, many questionnaire items dealing with behavior and media usage could be considered as independent variables.

This distinction between types of variables leads to a parallel distinction among types of multivariate[1] statistical techniques that are needed for segmentation purposes: *dependence* and *interdependence* techniques. Dependence techniques use one or more types of independent variables to predict or explain a dependent variable (usually only a single dependent variable). The most commonly used dependence techniques for segmentation research include the following:

- Automatic Interaction Detector (AID),
- Chi-squared Automatic Interaction Detector (CHAID), and
- Regression and Discriminant Analysis.

[1]That is, considering many variables simultaneously.

Interdependence techniques search for groups of people or items that are found to be similar in terms of one or more sets of basis variables. All variables used are considered to be more or less equal in terms of interest, and there is usually no attempt to single some out as being any more interesting than the others (as is done in dependence analysis). The most commonly used interdependence techniques for segmentation research include the following:

- Hierarchical clustering,
- Partition clustering, and
- Q-type factor analysis.

Each statistical technique is discussed and illustrated in Chapters 3, 4, and 5. For the reader who is interested in other multivariate techniques, both dependence and interdependence, Figure 2.2 shows an expanded conceptual framework.

The main point here is that some segmentation studies involve a dependent variable (e.g., usage rates) that is to be explained by some combination of independent variables, either consumer- or product-related characteristics. Other studies are based only on interdependencies among one or more items in a questionnaire, usually items of the same general type. The choice between these 2 models is determined by the objectives of the study. This distinction is referred to in subsequent discussions of specific statistical techniques.

FOUR TYPES OF MEASURING SCALES

Also important are the distinctions between 4 types of measurement scales in terms of which basis variables might be expressed. These distinctions are important because they determine the specific statistical technique that is required for a particular objective or type of analysis. The 4 types of scales follow:

- *Nominal* scales consist of numbers designating categories that are in no particular order and have no necessary relation to one another. Scale values, if any, are used for identification only (e.g., numbers on football jerseys). Examples of such variables in consumer segmentation research are ethnic background, geographic area, and occupation.

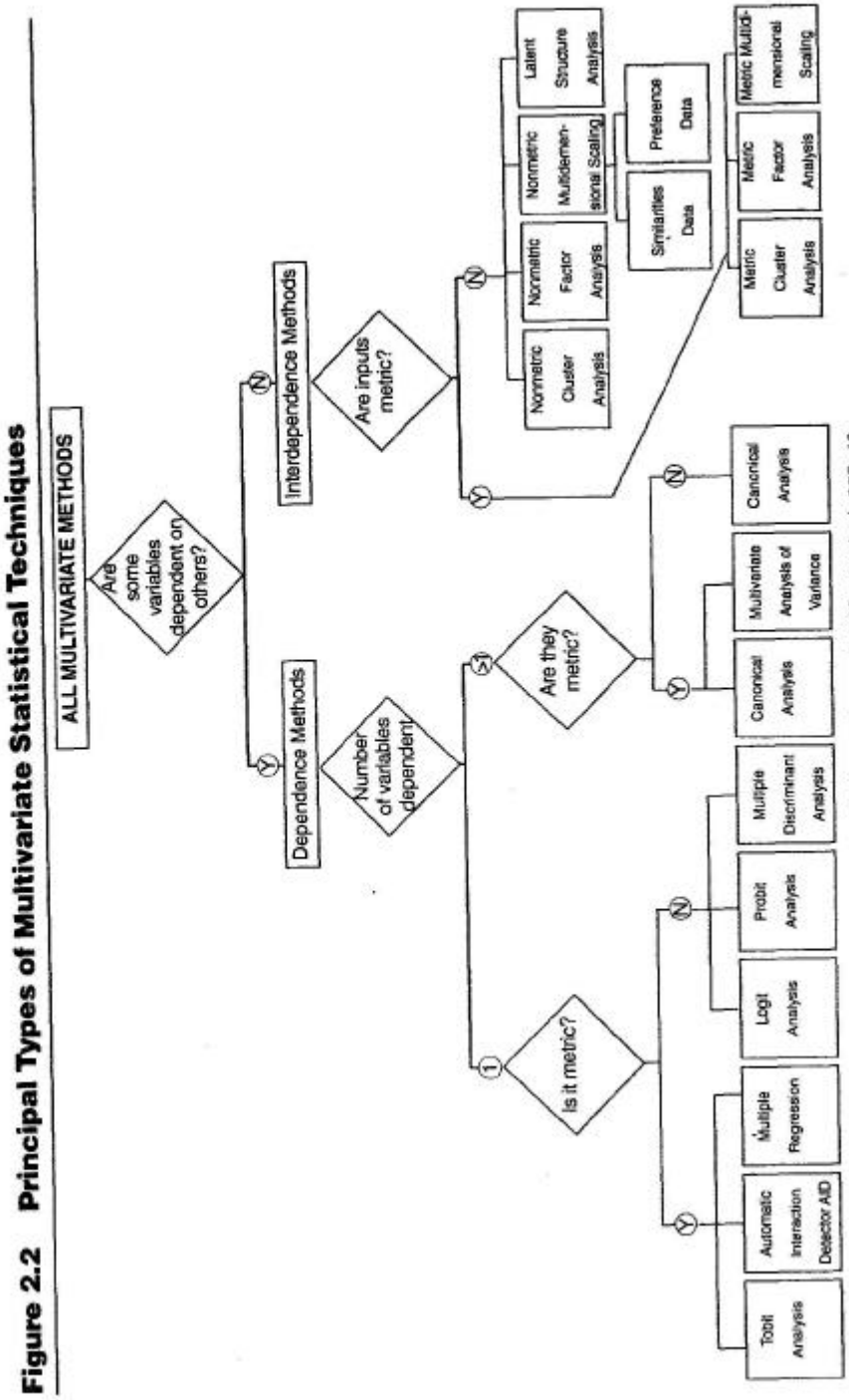

Figure 2.2 Principal Types of Multivariate Statistical Techniques

Source: Peter Doyle (1977), "In Marketing: A Review," *Journal of Business Research*, 5 (September), 235–48.

- *Ordinal* scales consist of numbers in rank order, such that each number identifies a category that is higher or lower in value than any of the previous ones. However, the distance between consecutive values can vary considerably from one rank order to another (e.g., the difference in value between 3 and 4 can be much greater or smaller than that between 7 and 8). Examples in marketing research include rank orders of preference for brands or activities, attribute performance ranks, and so on.
- *Interval* scales consist of numbers whose differences in value are the same for all consecutive numbers on the scale. Thus, the difference in value between 3 and 4 is the same as between 7 and 8, or approximately so. However, interval scales have *no absolute zero point* that indicates the complete absence of whatever is being measured. Examples in marketing include respondent ratings of brand attributes, attitude statements, and lifestyle descriptions (even though some researchers have doubts that these are actually interval scales, most researchers use them as such).
- *Ratio* scales consist of numbers that have all the previously mentioned properties: in rank order of value, equal value differences between consecutive numbers, *plus* a zero point indicating no amount of what is being measured. Examples include dollar amounts, frequency of usage, and such demographics as age, income, and number of persons in a family (see Churchill 1991, pp. 414–17 for an expanded coverage of this topic).

It is important to keep these definitions in mind for subsequent chapters dealing with both segmentation and positioning techniques. They are referred to when explaining why a specific statistical technique is utilized for a particular analysis.

BENEFIT SEGMENTATION PARADOX

A caveat is in order whenever an analyst attempts to segment a sample of respondents on the basis of the *benefits they want* from a particular product/service category, as is often done. In this situation, an analyst must draw a clear distinction between basis variables that are important in *separating* the total sample into homogeneous segments and those that

are important because they are the benefits or features that the respondents in each segment *want most*. It is all too easy to assume that these are one and the same. Sometimes they are, but often they are not.

When the analyst succeeds in separating the total sample into benefit segments, using any of the techniques discussed in the subsequent chapters, the next step is usually to profile each segment in terms of the benefits respondents want more than other segments do. These "discriminators" are then considered to characterize each of the segments, and subsequent interpretation of results focuses on them quite naturally. It is then easy to go on to assume that these are the benefits or features respondents want most.

However, there can be other benefits that respondents want much more than they do the discriminators. Let us call these former benefits the "drivers," because they would have the greatest effect on overall satisfaction. Attributes that are the most important drivers for all segments about equally will not, by definition, distinguish among the segments and, therefore, would not be identified in the analysis used to produce benefit segments. Yet, they could be benefits that respondents in all segments want much more than they do the discriminators. An actual study will help to illustrate.

A large utility company decided to do separate benefit segmentation studies in two of its regions, because it was believed that business subscribers might want different benefits in different regions. The basis variables consisted of importance ratings on each of 59 benefits such as "Have suppliers we can depend on to deliver what we need, when we need it, every time," "Provide the best equipment for our employees to work with," and "Respond to customer needs more quickly." Table 2.2 shows the rank order of the benefits that distinguished best among the six segments in each region (in terms of their variable numbers on the questionnaire). Note the similarities between regions for many of the top 20 discriminators.

But when the variables are rank ordered in terms of their average importance ratings (drivers), the order is different. This is shown in Table 2.3. Here again, the drivers are very similar between regions.

However, not one of the top 5 drivers appears in the top 5 discriminators for either region. The same is true for the top 10 drivers in Region A and is almost true for Region B. Clearly, discriminators were not the same as drivers, at least in this study (and several others the author has conducted). Results show that there were approximately 10 benefits that

Table 2.2 Rank Order of Distinguishing Variables (6-Cluster Centered Solutions)

	Questionnaire variable no.	
Order[a]	Region A	Region B
1	#3	#76
2	76	3
3	12	47
4	47	12
5	13	42
6	7	7
7	64	75
8	75	85
9	55	13
10	5	14
11	29	32
12	74	78
13	34	58
14	66	69
15	2	6
16	78	57
17	32	64
18	65	36
19	85	83
20	81	56

[a] In order of ability to differentiate among segments.

respondents in each segment wanted more than *any* of the discriminators that are commonly used to characterize segments.

Unfortunately, this study has an unhappy ending. The management consultant employed by the utility failed to heed the warning of the research analyst and instead chose to characterize segments on the basis of the benefits each one *wanted most*. When the client saw very little difference among the segments (the top ten benefits were virtually the same for each), the entire segmentation study lost credibility, and the management consultant lost his job with his consulting firm.

Table 2.3 Rank Order of Important Variables (Total Samples)

	Questionnaire variable no.	
Order[a]	Region A	Region B
1	#13	#13
2	55	75
3	75	57
4	57	55
5	64	6
6	6	14
7	15	32
8	14	56
9	2	2
10	56	15
11	39	85
12	85	19
13	65	9
14	19	64
15	68	45
16	9	58
17	12	39
18	72	27
19	32	60
20	58	72

[a] By average importance ratings.

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CHAPTER 3

SOME COMMON BASIS VARIABLES

In the previous chapter, a few of the more commonly used basis variables are mentioned briefly. It also is pointed out that the number of such variables is limited only by the imagination of the researcher. Because it is obviously not possible to provide a complete listing of all possible basis variables, it is helpful to discuss some that have been found most useful in both consumer and industrial research. This at least illustrates the types of variables that have been used in the past, with the further objective of stimulating the imagination of researchers hoping to gain additional insights into their markets.

CONSUMER MARKETS

In the previous chapter, a distinction was made between consumer- and product/service-based approaches to market segmentation. In this section, it is helpful to follow these typologies in discussing the different types of basis variables used most often. We begin with consumer markets, in which most segmentation research and writing has been done.

Consumer-Based Basis Variables

Demographics

Probably the earliest and certainly most commonly used basis variables for segmenting consumer markets today are population demographics. These include such factors as age, sex, income, family size and composition, ethnic background, education levels, and occupation.

Also of interest, but not formally demographic in nature, are such factors as geographic area, type and characteristics of housing, ownership of such items as cars, household appliances, pets, recreational items (e.g., boats, campers), and mode and distance of travel to and from work. These basis variables have been popular over the years for three major reasons: (1) They describe what consumers *are like*, and from this plus our own experience we can infer something about how they might think and some of the things they are most likely to want; (2) Data describing the entire U.S. population in terms of these characteristics are readily and cheaply obtainable from government sources (e.g., Censuses of Population and Housing), as well as from some business publications (e.g., *Sales and Marketing Management Annual Survey of Buying Power*); and (3) Coverage for all major types of media is almost always available in terms of consumer demographics.

Demographic variables such as those listed previously are most often used for a priori segmentation. Companies begin their segmentation research by determining selected demographic characteristics of their present customers and then comparing these data with those from the latest U.S. Censuses of Population and Housing. Significant differences then are used as a basis for informing decisions about one or more parts of the marketing mix. Also, if consumer surveys are done post hoc it becomes possible to compare the demographics of a company's own customers with those of competitors, as revealed by the survey. Studies of this general nature have been done countless times over past decades.

A natural extension of this is to compare the demographic characteristics of heavy versus light users of a product/service. Because this involves starting with a basis variable that is related to a product or service (e.g., usage rate) rather than a person, it can be said to be the "flip side" of demographic research. Heavy user research is particularly popular and useful for most companies.

Geodemographics

When geographic areas having similar demographic characteristics are grouped together, they form what is known as *geodemographic* segments. In U.S. consumer marketing, the geographic areas used most often for this purpose are zip codes or block groups. The demographics are those found in the U.S. Censuses of Population and Housing. In other types

of consumer segmentation research, the basic unit of analysis is usually the individual or the household. In geodemographics, the unit is the zip code or block group.

Using one of the statistical techniques described subsequently (partition clustering), a computer forms segments consisting of zip codes found anywhere in the United States that have similar demographic characteristics. It is important to note that the codes within each geodemographic segment are actually widely dispersed throughout the country. They are not contiguous and therefore do not represent some particular area or region of the country.

Geodemographic segments of this kind are expensive to identify and are obtainable only from commercial research firms. The most prominent offerings are called PRIZM (Claritas), CLUSTER PLUS (Donnelley), and ACORN (CACI, Inc.), with each having some advantages over the others. Interestingly, all 3 services report approximately the same number of segments, about 50. Table 3.1 shows a few of the segments produced by CLUSTER PLUS. Each segment is defined in terms of demographic and housing basis variables. Segments from one of these providers are probably more similar in definition and description to those of other providers than they are different.

Using these 50 segments, companies can conduct additional research to determine which segments offer them the most, and least, opportunity and then can focus marketing resources accordingly. Segments of this kind are especially useful for companies doing "direct marketing" (i.e., by mail). Examples include magazine and newspaper subscriptions, catalogue sales, and retail credit cards. They are also useful for planning store locations for companies with nationwide chains of retail outlets, either company owned or franchise operations, such as fast-food restaurant chains and convenience stores.

A specific example of an application of geodemographic segmentation is shown in Figure 3.1. CREST is a company that conducts regular tracking studies of individual and family visits to restaurants, using a large nationwide sample of households. In one of these surveys the company determined the number of people who said they ordered chicken at any restaurant during the prior month, for each geodemographic segment separately. The chicken-buyer profile in Figure 3.1 compares chicken orders for each segment to the national average (100 on the vertical axis). These results can be used by fast-food restaurants specializing in chicken sales to locate new stores, close unsuccessful ones, and allocate promotion expenditures.

Table 3.1 ClusterPlus Descriptions

Cluster Code	Demographic Characteristics
S 01	Highest SESI, Highest Income, Prime Real Estate Areas, Highly Educated, Professionally Employed, Low Mobility, Homeowners, Children in Private Schools
S 02	Very High Income, New Homes and Condominiums, Prime Real Estate Areas, Highly Mobile, Well Educated, Professionally Employed, Homeowners, Families with Children
S 03	High Income, High Home Values, New Homes, Highly Mobile, Younger, Well Educated, Professionally Employed, Homeowners, Married Couples, High Incidence of Children, Larger Families
S 04	High Income, High Home Values, Well Educated, Professionally Employed, Married Couples, Larger Families, Highest Incidence of Teenagers, Homeowners, Homes Built in 60s
S 05	High Income, High Home Values, Well Educated, Professionally Employed, Low Mobility, Homeowners, Homes Built in 50s and 60s
S 06	Highest Incidence of Children, Large Families, New Homes, Highly Mobile, Younger, Married Couples, Above Average Income and Education, Homeowners
S 07	Apartments and Condominiums, High Rent, Above Average Income, Well Educated, Professionally Employed, Mobile, Singles, Few Children, Urban Areas
S 08	Above Average Income, Above Average Education, Older, Fewer Children, White Collar Workers
S 09	Above Average Income, Average Education, Households with Two or More Workers, Homes Built in 60s and 70s
S 10	Well Educated, Average Income, Professionally Employed, Younger, Mobile, Apartment Dwellers, Above Average Rent
S 11	Above Average Income, Average Education, Familes with Children, High Incidence of Teenagers, Homeowners, Homes Built in 60s, Small Towns
S 12	Highly Mobile, Young, Working Couples, Young Children, New Homes, Above Average Income and Education, White Collar Workers
S 13	Older, Fewer Children, Above Average Income, Average Education, White Collar Workers, Homeowners, Homes Built in 50s, Very Low Mobility, Small Towns
S 14	Retirees, Condominiums and Apartments, Few Children, Above Average Income and Education, Professionally Employed, High Home Values and Rents, Urban Areas
S 15	Older, Very Low Mobility, Fewer Children, Above Average Income and Education, White Collar Workers, Old Housing, Urban Areas

Table 3.1 ClusterPlus Descriptions *(Continued)*

Cluster Code	Demographic Characteristics
S 16	Working Couples, Very Low Mobility, Above Average Income, Average Education, Homeowners, Homes Built in 50s, Urban Areas
S 17	Very Young, Below Average Income, Well Educated, Professionally Employed, Highly Mobile, Singles, Few Children, Apartment Dwellers, High Rent Areas
S 18	High Incidence of Children, Larger Families, Above Average Income, Average Education, Working Couples, Homeowners
S 19	High Incidence of Children, Larger Families, Above Average Income, Average Education, Younger, Married Couples, Homeowners, Homes Built in 60s and 70s, Primarily Rural Areas
S 20	Areas with High Proportion of Group Quarters Population, Sub-divisions available including College Dormitories, Homes for the Aged, Mental Hospitals, and Prisons
S 21	Average Income and Education, Blue Collar Workers, Families with Children, Homeowners, Lower Home Values, Rural Areas
S 22	Below Average Income and Education, Older, Fewer Children, Single Family Homes, Primarily in the South
S 23	Below Average Income, Average Education, Low Mobility, Married Couples, Old Homes, Farm Areas, North Central Region
S 24	Highly Mobile, Young, Few Children, Low Income, Average Education, Ethnic Mix, Singles, Apartments, Urban Areas
S 25	Younger, Mobile, Fewer Children, Below Average Income, Average Education, Apartment Dwellers
S 26	Older, Mobile, Fewer Children, Below Average Income, Average Education, Mobile Homes, Retirees, Higher Vacancy Rates, Primarily Rural Areas
S 27	Average Income and Education, Single Family Homes, Lower Home Values, Homes Built in 50s and 60s
S 28	Below Average Income, Less Education, Younger, Mobile, High Incidence of Children, Mobile Homes, Primarily Rural Areas
S 29	Older, Low Mobility, High Proportion of Foreign Languages, Average Income, Below Average Education, Old Homes and Apartments, Urban Areas, Northeast Region
S 30	Low Income, Poorly Educated, Higher Vacancy Rates, Families with One Worker, Farms, Rural Areas
S 31	Older, Fewer Children, Low Income, Less Educated, Low Mobility, Retirees, Old Single Family Homes

Table 3.1 ClusterPlus Descriptions *(Continued)*

Cluster Code	Demographic Characteristics
S 32	Old, Few Children, Low Income, Below Average Education, One-Person Households, Retirees
S 33	Below Average Income, Less Educated, Blue Collar Workers, Manufacturing Plants, Homes Built in 50s and 60s, Very Low Mobility, Low Home Values
S 34	Older, Below Average Income, Average Education, Blue Collar Workers, Low Mobility, Rural Areas
S 35	Old Housing, Low Income, Average Education, Younger, Mobile, Fewer Children, Apartment Dwellers, Small Towns
S 36	Average Income, Less Educated, Blue Collar Workers, Hispanic, Families with Children
S 37	Average Income, Below Average Education, Blue Collar Workers, Manufacturing Areas, High Unemployment, Primarily in the North Central
S 38	Old, Lowest Incidence of Children, Very Low Income, Less Educated, Apartment Dwellers, One-Person Households, Retirees, Urban Areas
S 39	Older, Very Low Mobility, Very Old Housing, Below Average Income and Education, Blue Collar Workers, Manufacturing Areas
S 40	Older, Very Low Income, Less Educated, One-Person Households, Retirees, Few Children, Old Homes and Apartments
S 41	Below Average Income, Less Educated, Blue Collar Workers, Manufacturing Plants, High Unemployment, Rural Areas
S 42	Low Income, Poorly Educated, Low Mobility, Blue Collar Workers, Manufacturing Plants, Rural South
S 43	Southern Blacks, Families with Children, Single Family Homes, Low Mobility, Low Income, Less Educated, Unskilled, High Unemployment
S 44	Urban Blacks, Very Low Income, Less Educated, High Unemployment, Singles, Mobile, Apartment Dwellers, Large Metro Areas
S 45	Urban Blacks, Very Low Income, Less Educated, Unskilled, High Unemployment, Old Housing
S 46	Poorly Educated, Very Low Income, Hispanic, Families with Children, Apartment Dwellers, Unskilled, High Unemployment
S 47	Lowest SESI, Urban Blacks, Very Low Income, Less Educated, Unskilled, Very High Unemployment, High Incidence of Female Householders with Children, Old Housing

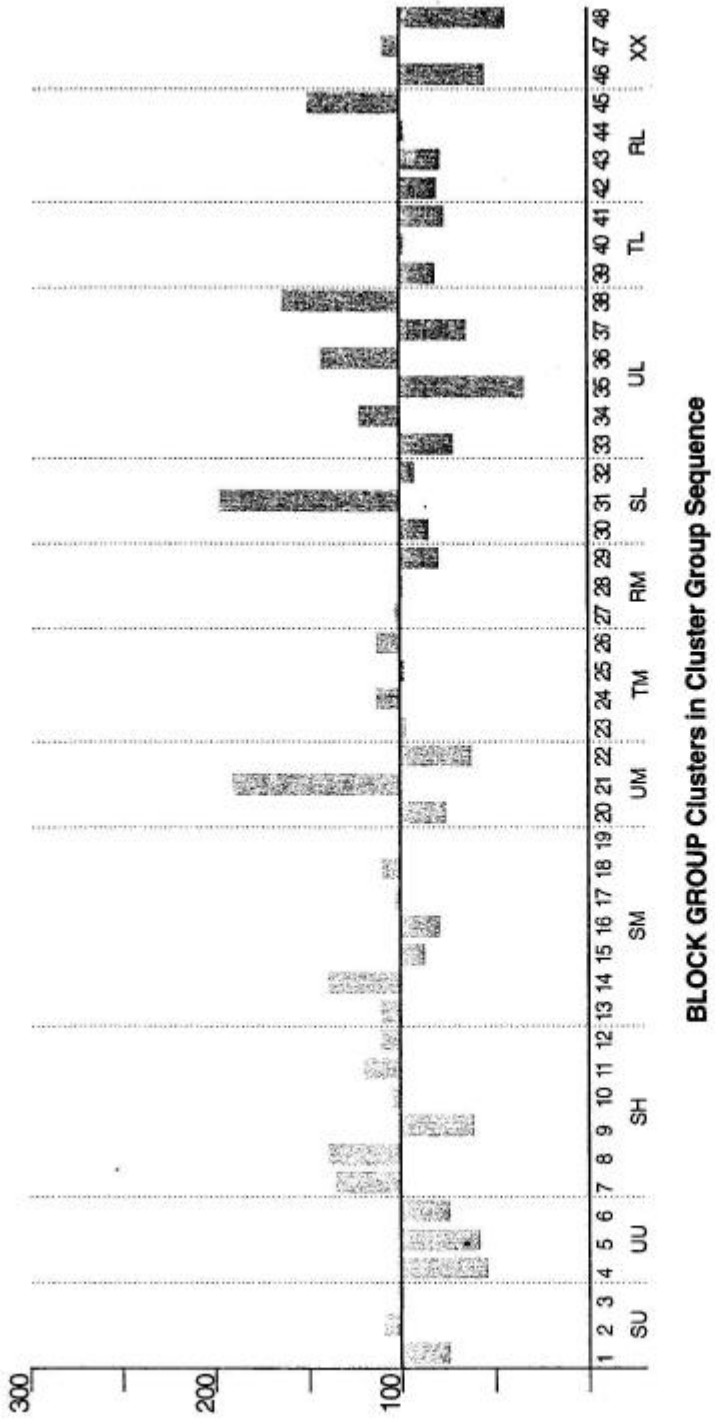


Figure 3.1 CREST/Vision Interlock Chicken-Buyer Profile

They also can be used for menu planning by some other types of restaurants. A similar analysis was done for frequency of eating at any type of fast-food restaurant, with eat-in and take-out analyzed separately.

Geodemographic segmentation can be a powerful tool for marketers of many types of consumer products or services. It enables them to focus their marketing efforts on specific areas throughout the United States that offer the greatest potential for their offerings. (However, some practitioners believe there is little or no evidence that geodemographic segments respond differently to variations in the marketing mix within a product/service category.)

Product-Related Attitudes

Consumers attitudes toward a specific product/service *category* is another frequently used type of basis variable. This is especially useful for advertising and promotion programs, because it enables advertising agencies to understand what people think and feel about their needs in some specific product or service category. A great many attitude segmentation studies have been conducted over recent years by consumer products/services companies and advertising agencies.

For segmentation purposes, attitudes must be reduced to specific statements that respondents can rate on a suitable scale. Table 3.2 shows a sample of such statements from a study of shampoo and creme rinse for women. The exact scaling format is not a critical issue. Some researchers prefer 7-point verbal scales, others prefer 10- or 11-point numerical scales (1 = strongly disagree, 10 = strongly agree). Many prefer a Likert-type verbal scale similar to the one in Table 3.2. Most researchers consider all of these interval scales, which enables them to use the more powerful and widely available "parametric" statistical techniques for analysis (though some researchers disagree with this, as discussed previously).

Where do the attitude statements come from? As a general rule, it is always best to review previous research and conduct several focus groups or individual depth interviews with qualified respondents who are users of the product or service. Ideas and observations from these groups can provide a rich source of insights from which specific attitude statements can be developed. They also reveal the language and semantics people tend to use when talking about the product/service category.

In practice, however, it is often the case that a company's researchers previously have conducted many focus groups for a variety of purposes,

Table 3.2 Hair Care Attitude Statements

	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	
If my hair doesn't look good, my whole day doesn't go right	☐4	☐3	☐2	☐1	(29)
I don't worry about my hair. I just wash it when I have time	☐4	☐3	☐2	☐1	(30)
I buy whatever is cheapest in hair care products	☐4	☐3	☐2	☐1	(31)
I switch brands once in a while to try something different	☐4	☐3	☐2	☐1	(32)
Creme rinse/instant conditioners keep my hair healthy	☐4	☐3	☐2	☐1	(33)
I know my hair is clean when it smells fresh	☐4	☐3	☐2	☐1	(34)
Creme rinse/instant conditioner is more important than shampoo because it's the last thing you put on your hair and will have the most effect	☐4	☐3	☐2	☐1	(35)
Shampoos with conditioners in them don't provide enough conditioning	☐4	☐3	☐2	☐1	(36)
After a few hours my hair looks like it needs washing again	☐4	☐3	☐2	☐1	(37)
I'd like a shampoo with no fragrance at all	☐4	☐3	☐2	☐1	(38)
I'd never sleep on rollers	☐4	☐3	☐2	☐1	(39)
I refuse to go anywhere when my hair doesn't look right	☐4	☐3	☐2	☐1	(40)
I'm willing to spend time on my hair to make it look nice	☐4	☐3	☐2	☐1	(41)
I just use whatever hair care products are around the house	☐4	☐3	☐2	☐1	(42)
I switch brands every so often because my hair looks better if I do	☐4	☐3	☐2	☐1	(43)
My hair is clean when it's bouncy and fluffy	☐4	☐3	☐2	☐1	(44)
Conditioners just coat the hair. They don't really penetrate the hair shaft	☐4	☐3	☐2	☐1	(45)
Creme rinse/instant conditioners are too much trouble	☐4	☐3	☐2	☐1	(46)

Table 3.2 Hair Care Attitude Statements (*Continued*)

	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	
I haven't found a shampoo yet that lets me get a comb through my hair	☐4	☐3	☐2	☐1	(47)
I don't like shampoos that leave a fragrance that lingers	☐4	☐3	☐2	☐1	(48)
It's better to let your hair dry by itself	☐4	☐3	☐2	☐1	(49)
I'll buy a shampoo because I like the fragrance	☐4	☐3	☐2	☐1	(50)
It's better to use the same brand of shampoo and creme rinse/instant conditioner because they're made to work together	☐4	☐3	☐2	☐1	(51)
My hair is the only part of my appearance I'm happy with	☐4	☐3	☐2	☐1	(52)
I switch because the effectiveness of the product wears off	☐4	☐3	☐2	☐1	(53)
I know my hair is clean when it shines	☐4	☐3	☐2	☐1	(54)
Shampoo is more important than creme rinse because I want to be sure my hair is clean	☐4	☐3	☐2	☐1	(55)

and they believe that they already have a good understanding of people's feelings from these prior groups plus results from other research studies. In such cases attitude statements simply are "assembled" by the company research department or an outside research firm, with inputs from the advertising agency, company technical personnel, and upper management. Results might not be quite as good as those from a careful review of focus group transcripts, but many companies do not believe that the additional time and expense is worthwhile. Either way, it is usually not difficult to assemble a large number of attitude statements to be rated by respondents.

How many attitude statements are necessary? A major problem is that one really does not know how many. In practice, the number usually will

range from 20 to 100 or even more. The problem is that unless previous attitude research has been done by a company, its researchers simply do not know the basic attitude *dimensions* or *factors* underlying a product/service category or the relative importance of each. Even if prior research has been done, there is no assurance that all relevant attitudes were included. As a result, most commercial attitude segmentation for a specific product/service category is highly empirical and likely to remain so.

In spite of this, some useful results have been obtained from many if not most studies. Clear attitude segments usually are found, and these can be given such colorful names as "audiophiles" (people who are absorbed with the nuances of home or auto stereo equipment), "guilty drys" (people who feed their pets dry cat or dog food but feel guilty about it), and "tinkerers" (people who have more fun working on their motorcycles than riding them). Table 3.3 describes five segments for attitudes toward automobiles from a study conducted by the J.D. Power & Associates.

Lifestyles/Psychographics

In a sense, lifestyles (often called "psychographics") cover the broadest spectrum of all consumer-based segmentation basis variables. They include such topics as people's activities, interests, opinions, personality, and values. They are general in nature, as opposed to the attitudes toward a specific product/service category discussed previously.

To obtain lifestyle segments, the researcher has two choices: Develop his or her own segments, or purchase a segmentation scheme previously developed by an independent research company. The approach to developing one's own lifestyle segments is similar to that described for attitude segmentation. One assembles a large group of lifestyle statements (from a variety of possible sources) and asks a sample of respondents to indicate the extent to which each statement describes each respondent (e.g., 1 = not at all, 10 = describes me perfectly). A sample of lifestyle statements is shown in Table 3.4. Respondents then are clustered, using techniques described in the next chapter, to group people that have similar profiles of ratings. The resulting clusters are called "lifestyle segments."

There are perhaps 2 major differences between attitude segmentation and lifestyle segmentation research that is conducted by a company on its own. Whereas the former usually employs 25–100 statements involving a specific product/service category, lifestyle research often involves 150–300 statements because of the breadth of human experience it encom-

Table 3.3 Car Buyer Categories

Car buyers fall into six basic categories, according to a survey done by J.D. Power & Associates in early 1985. Following are the categories, along with the percentage and types of cars they buy.

Category	Percentage	Description	Make
Automophiles	24%	Know a lot about cars and enjoy working on them.	Dodge, Pontiac
Sensible-centrists	20%	Prize practicality.	Volvo, AMC
Comfort-seekers	17%	Favor options and luxury models.	Jaguar, Mercedes, Lincoln
Necessity-drivers	13%	Prefer an alternative way of traveling.	AMC
Autophobes	12%	Care most about safety.	Oldsmobile, Mercury

Source: *New York Times*, J.D. Power & Associates, Jan. 21, 1986

passes. Here again, one never knows whether all important statements, or even general topics, have been included. Some help can be obtained from previously published studies in this area (see Plummer 1974; Richards and Sturman 1977; Solomon 1992; Wells 1974).

The second difference is that lifestyle segmentation would usually have much less need for focus groups to develop statements. They are usually drawn better from one's own experiences in life, supplemented generously by insights from the extensive literature already available in the social sciences. The broader one's own reading and experience, the richer the inventory of lifestyle items.

The other approach is to purchase a lifestyle segmentation scheme from a commercial firm. By far the best known of these is the VALS program by SRI, Inc. (Stanford Research Institute). The original program (VALS I) supplied a relatively small group of lifestyle statements to a

Table 3.4 Examples of General Lifestyle Statements

How well does each of these statements describe you? (Very well, fairly well, not very well, not at all):

ACTIVITIES

I often listen to FM radio.

I seldom vote in elections.

I'm the one who balances the checkbook in our family.

Our family usually eats dinner together.

We often keep a fruit bowl at home for children's use.

Watching TV is one of my main forms of recreation.

I usually do some grocery shopping every day.

I do volunteer work for a hospital or other service organization on a fairly regular basis.

INTERESTS

I'd rather watch Monday night football than a comedy show on television.

I love to cook.

I'd like to spend a year in London or Paris.

I like to read articles about new developments in medicine.

I like outdoor activities.

I use a lot of spices and seasonings.

I like to read the financial pages in the newspaper.

OPINIONS (agree/disagree)

It is good to have charge accounts.

Joining clubs or groups at school is good for children.

You can get all the vitamins you need without eating fresh vegetables.

Pollution is a bad problem now and is going to get worse.

Most people don't know how to handle their money properly.

Things just don't taste right if they come out of a can.

PERSONALITY

I'm in a happy frame of mind most of the time.

I feel very guilty when I do something wrong.

I like to have my room and possessions arranged in an orderly fashion.

I enjoy the company of others.

I like to be doing something all the time.

I have a lot of confidence in myself.

I often have minor physical problems.

I'm a leader in most of the groups I'm in.

PERSONAL VALUES

What other people think about me is very important.

I feel that people should be severly punished for doing wrong.

My children are the most important thing in my life.

I enjoy the finer things in life and I don't mind paying for them on credit.

Helping other people in trouble gives me great satisfaction.

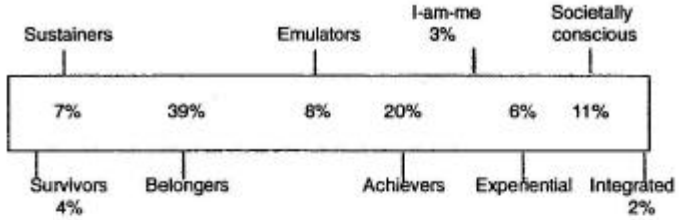
I feel it is important to work on community projects.

An important part of my life and activities is dressing in the latest style.

client, along with a scoring form used to sort respondents into 9 mutually exclusive categories, described briefly in Table 3.5.

VALS segments apparently have been used successfully by many companies, because this service has been available for many years. In recent years, SRI has changed its VALS segments considerably, to reflect better their experience in applying this tool in business firms of many

Table 3.5 Descriptions of VALS Lifestyle Categories



SURVIVORS

Survivors are the most disadvantaged portion of the American society by reason of extreme poverty, low education, old age, and little access to the channels of upward mobility. Many, now infirm, once lived lifestyles associated with higher levels of the VALS hierarchy. Many generation-after-generation Survivors are ensnared in the so-called culture of poverty.

SUSTAINERS

Sustainers are a group struggling at the edge of poverty. They are better off and younger than Survivors, and many have not given up hope. Their values are very different from those of Survivors, having advanced from the depression and hopelessness typical of Survivors to include anger at the system they see as repressing them and a streetwise determination to get ahead. Many operate in the underground economy.

BELONGERS

Belongers comprise the large, solid, comfortable, middle-class group of Americans who are the main stabilizers of society and the preservers and defenders of the moral status quo. Belongers tend to be conservative, conventional, nostalgic, sentimental, puritanical, and conforming. The key drive is to fit in—to belong—and not to stand out. Their world is well posted and well lit, and the road is straight and narrow.

EMULATORS

Emulators live in a wholly different world from that of Belongers. Emulators are trying to burst into the upper levels of the system—to make it big. The object of their emulation is the Achiever lifestyle. They are ambitious, upwardly mobile, status-conscious, and competitive. Many see themselves as coming from the other side of the tracks. Hence many are intensely distrustful, are angry with the way things are, and have little faith that "the system" will give them a fair shake.

ACHIEVERS

Achievers include the leaders in business, the professionals, and government. Competent, self-reliant, and efficient, Achievers tend to be materialistic, hard-working, oriented to fame and success, and comfort-loving. These are the affluent people who have created the economic system in response to the American dream. As such, they are the defenders of the economic status quo. Achievers are among the best-adjusted Americans, being well satisfied with their place in the system.

I-AM-ME

Typically, the I-Am-Me person is young and fiercely individualistic to the point of being narcissistic and exhibitionistic. People of this stage are full of confusions and little-understood emotions; hence they often define themselves better by their actions than by their statements. I-Am-Mes tend to be dramatic and impulsive. Like cats, they have whims of iron.

EXPERIENTIAL

Experientials are people who most want direct experience and vigorous involvement. Life is a light show at one moment and an intense, often mystic, inner experience the next. They are attracted to the exotic (such as Oriental religions), to the strange (such as parapsychology), and to the natural (such as "organic" gardening and home baking). The most inner directed of any VALS group, these people also are probably the most artistic, the most passionately involved with others.

SOCIETALLY CONSCIOUS

A high sense of societal responsibility leads these people to support such causes as conservation, environmentalism, and consumerism. They tend to be activistic and mission-oriented and are attracted to simple living and the natural. Many do volunteer work. They seek to live frugal lives that conserve, protect, and heal. Inner growth remains a crucial part of life.

INTEGRATED

At the pinnacle of the VALS typology is a small group called the Integrated. These rare people have put it all together. They are fully mature in a psychological sense—able to see many sides of an issue; able to lead if necessary, and willing to take a secondary role if that is appropriate. They usually possess a deep sense of the fittingness of things, a world perspective. They tend to be self-assured, self-actualizing, self-expressive, and keenly aware of issues and sentiments.

(Adopted from Values and Life Styles of Americans, SRI International, 1983.)

types. However, the original program and categories are still available on request.

In an interesting application of VALS many years ago, Merrill Lynch found it had been positioning itself improperly in its advertising by using an entire herd of bulls (to signify that "Merrill Lynch is bullish on America"). However, a VALS study showed that most individual investors fell in the "Achiever" category, and these people are mostly *highly individualistic* and "inner-directed." As a result, Merrill Lynch switched to showing only a single bull in its ads with the theme, "A breed apart." Another successful application of lifestyle segmentation involved the Leo Burnett agency advertising campaign for Schlitz beer ("Go for the gusto").

Product/Service-Based Basis Variables

The other major type of basis variable includes any that are related to the product or service itself or how people react to or utilize it. Examples of the most popular of these are discussed subsequently.

Usage Quantity

Often the most useful place to start product-based segmentation efforts is with usage rates, if survey data are available. Many product/service categories have some users who consume far more than others. For example, about 20% of U.S. beer drinkers consume about 70% of the total, 15% of the passengers on one airline at one time account for 65% of all travel on that airline, and 2% of the accounts in one large bank trust department hold about 50% of all assets under trust. These are but a few of many examples of the "80–20" principle (which especially applies in industrial marketing, in which a few firms are likely to dominate the market for a product/service category).

Sometimes companies know from previous research the distribution of consumption amounts for its customers, so they can utilize usage rates as an a priori basis variable (as a banner in cross-tabulations). More often, companies undertaking large-scale segmentation studies believe they do not have accurate enough current data on consumption to be confident of the cutoffs between heavy and light usage. Also, sample composition is sometimes different. In such cases they establish cutoffs for usage segments from survey data (on a post hoc basis).

Usage rates are one of the simplest basis variables used for segmentation efforts. Some companies just dichotomize the consumption distribution into heavy versus light users at the median point. More often, 3 categories are used: heavy, medium, and light. A few even prefer 4 categories or more.

However, going beyond 3 categories can present 2 kinds of problems: (1) Unless the total sample is very large, the numbers of respondents in each of 4 or more usage segments becomes so small that results can be rather unstable and (2) Even with larger samples, the overall patterns of differences between the usage groups become more difficult to perceive clearly (for example, the heaviest and lightest usage groups may differ noticeably, but the middle groups do not show a uniform trend between high and low, so one cannot be sure, without statistical tests, whether these differences represent meaningful nonlinearities or simply sampling fluctuations). Results of this kind are difficult to interpret.

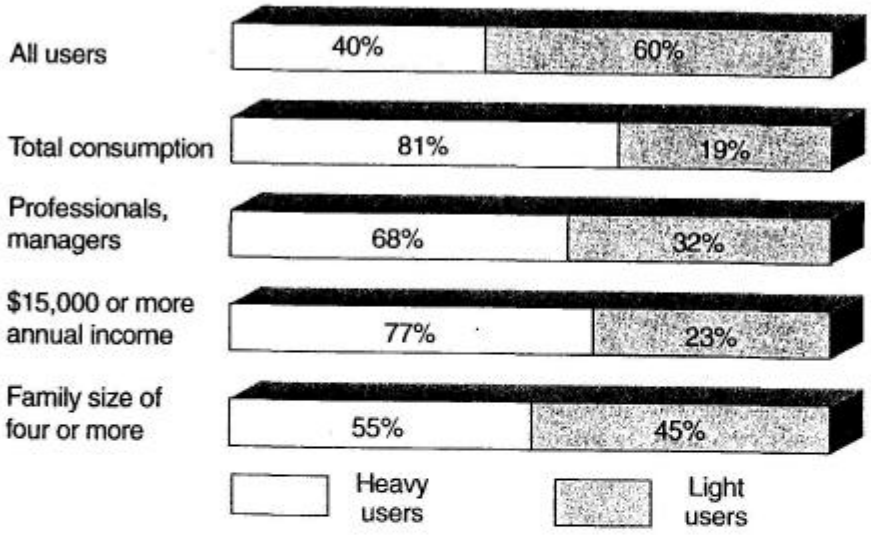
Once the post hoc usage segments are formed, it becomes easy to cross-tabulate demographics and other survey responses against them. The procedure is exactly the same as that used for a priori usage segments. Figure 3.2 shows an example of some demographic differences between heavy and light users of a laundry product.

Usage Patterns

Patterns in the use of a product/service also can provide interesting insights into customer behavior and therefore can be used as post hoc basis variables. For example, in a study of home air fresheners, respondents were asked in which rooms of the house they typically placed these products. Analysis showed definite patterns in usage. Some respondents used them in kitchens and bathrooms only, others in living rooms and bedrooms, others in closets/attics/basements, and still others indicated combinations of these and other patterns.

In another study of a food seasoning product, some respondents reported using the product on all meats and poultry but no other foods, others used it only on vegetables, others on salads, and some had combinations of these patterns. As another example, customers of a large nationwide retailer showed clear patterns of shopping behavior: house furniture and appliances only, clothing only, home repair tools and patio furniture only, and some combinations of these.

Figure 3.2 Demographic and Usage Profile for a Household Laundry Product



Usage pattern segments of this kind not only show where and how to target promotion efforts, they also help to dispel management's myth that users of a company's product/service use it "for everything" simply because it is superior. Some do, of course, but it is usually the case that most customers are more selective in their choices among usage possibilities. Usage pattern segments can provide useful insights into behavior (or at least reported behavior) in the marketplace.

These segments are relatively easy to form. Respondents are asked to indicate, for example, on which foods they use a seasoning product, in which rooms they place an air freshener, or what types of merchandise they buy from a particular store or type of store. Segments are formed using one of the clustering procedures described in Chapters 4 and 5.

Benefits/Features Desired

One of the most common questions asked by management is, "What specific product/service benefits or features are most important to our customers and potential customers?" "What are the 'hot buttons'?" This knowledge is critical for decisions involving product/service design and

positioning efforts. Because this information is available only from survey results, it is a post hoc basis variable for any given survey.

It would seem that the key benefits/features could be identified easily simply by asking respondents to rate the importance of each on a 7- or 10-point scale. Although this in fact often is done, there are several well-known problems with such an approach:

1. Respondents sometimes do not know the importance of some features in making their choices (e.g., styling, peer pressure, container design).
2. They may know the importance of such factors but be unwilling to admit this, even to themselves.
3. They rate too many features or attributes very high in importance. In one study for a large public utility, 10 of 30 attributes were rated 9.2 or higher on a 10-point scale, and 20 were rated 9.0 or higher! Results of this kind give little specific direction for planning efforts.
4. Some benefits or features are "important" to people but have little effect on choice among competing brands or products because all of them are perceived to be offering the benefit or feature equally, or at least satisfactorily. These are simply "cost of entry" benefits—for example, safety of money in banks, safety of most airliners, a car that starts up immediately in the morning. Companies must offer these features because they are "important," but they get no credit for them because all competing products/services have them as well. Therefore, they do not offer a competitive advantage.
5. They often overstate the importance of "sensible" benefits (e.g., price, safety, nutrition).

Conjoint analysis is currently used widely to determine the relative importance of product/service attributes. This technique is preferred by many because it (1) provides attribute importance measures that do not rely on direct ratings from respondents, (2) forces trade-offs among very important attributes to determine which ones are the most important when it is not possible to provide both (especially price versus additional features or benefits), and (3) does this for each individual separately. Many commercial studies have been done using either a full profile or pairwise trade-offs (for a recent review of conjoint analysis issues and progress to date, see Green and Srinivasan 1990). There are also many other tech-

niques that can be used to determine the relative importance of product/service benefits or features. Unfortunately, results from different techniques often do not converge or agree (see Jaccard, Brinberg, and Ackerman 1986). This is a much more complicated matter than it appears.

Regardless of which specific technique is used, attribute importance weights are needed at the *individual level* for segmentation purposes. Then respondents that have similar patterns of weights can be identified using one of the clustering techniques described in Chapters 4 and 5. The resulting groups are usually referred to as *benefit segments*, or *needs-based segments*.

Attribute Deficiencies

Another useful basis variable is *unmet needs*, or *attribute deficiencies*. These can be measured by including a "comparison standard" in a survey and asking respondents to rate company or brand performance on each attribute in relation to the comparison standard. There are two widely used comparison standards: expected performance and desired performance. By subtracting rated performance from either expected or desired performance, attribute deficiencies can be identified.

For example, in a survey of shampoo products, respondents rated the performance of their own shampoo in relation to how much they wanted each of dozens of attributes, using the following format:

A shampoo that does not damage my hair

	Not at all								Extremely
Want	1	2	3	4	5	6	7	8	(9) 10
Get (from own brand)	1	2	3	4	5	6	(7)	8	9 10

This example shows a deficiency score of 2 (Want minus Get). When these 2 ratings are subtracted across all attributes, the result is a vector (column) of deficiency scores for each respondent. These scores are used to identify groups of respondents having similar patterns of deficiencies, and these represent market segments that have the same types of *unmet needs*. Segments of this kind offer considerable opportunity for product/service improvement efforts, the development of line extensions, or entirely new products. Deficiency segments can be among the most directly actionable by a company, because they show people's needs that are currently not being met (see Myers 1988).

Other Basis Variables

A great variety of other product-related basis variables are available for specific applications. Wind (1978) lists several of these:

- Brand or store loyalty,
- Purchase patterns (among products or brands),
- Reactions to new product concepts,
- Price sensitivity,
- Deal proneness, and
- Media usage.

Some of these are especially useful for such specific planning needs as positioning and new product/service planning and for decisions involving pricing, advertising, and distribution parts of the marketing mix.

Although many possible basis variables have been presented in this chapter, the list is by no means complete. Many others have been used for specific purposes; for example, purchase as gift versus own use, usage situation or occasion, time of day (or week), and family buying influences. For an expanded list of possible basis variables, see Clancy and Shulman (1991, pp. 74–75). Researchers need a great deal of insight, ingenuity, and creativity in selecting basis variables for the wide diversity of products and services offered in consumer markets.

BUSINESS-TO-BUSINESS MARKETS

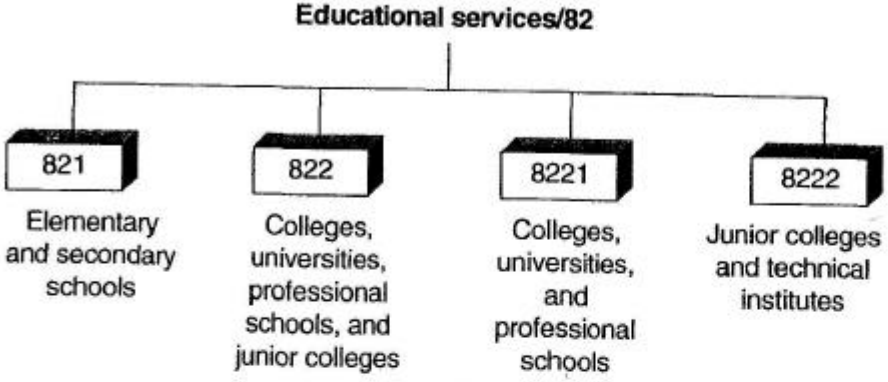
Following the pattern for consumer markets, business-to-business basis variables are discussed first for customer-based and then product/service-based variables. Customer-based variables are those that define or describe business firms, but they also apply equally to other types of organizations: not-for-profit, government, social, and affinity groups. For brevity, we use the term *business*.

Customer-Based Basis Variables

Type of Business

For business firms that sell to many different types of customers (not all do), the basis variable used most often is probably *type of business*. The

Figure 3.3 SIC Codes for Educational Services



U.S. government has compiled a taxonomy of all major and most minor types of businesses in a publication titled *Standard Industrial Classification (SIC) Manual.* It contains SIC codes, and each type of business is given a separate number, from 2 to 6 digits. As an example, Figure 3.3 illustrates how this works for educational institutions.

Some business firms need only a single SIC code to describe their type of business; others need dozens. (For example, at one time General Electric was in nearly 100 separate businesses.) However, the U.S. Censuses of Business and Manufacturing require each firm to list itself under the single SIC code that best describes itself, and these classifications provide the basis variables used to segment business markets.

SIC codes are similar to consumer demographics in the sense that many companies feel they tell more about what the market is like, and therefore what it wants and needs, than any other single set of a priori basis variables. Some businesses sell only within a single 3 or 4 digit SIC code, whereas others sell to dozens whose needs differ considerably. For example, different types of banking services might be needed by retailers, movie producers, heavy machinery manufacturers, hospitals, and insurance companies. The same is true for other product and service offerings, such as office copier machines, personal computers and workstations, telecommunications equipment, building security and maintenance services, and motor vehicle tires.

SIC codes identify the *basic structure of business markets.* Nearly all data available for these markets from all sources are presented in

Table 3.6 Sizes of Business Firms in the United States

Size	Number	Percentage
Under $25,000	9,295,000	63.1
$25,000-$49,999	1,635,000	11.1
$50,000-$99,999	1,369,000	9.3
$100,000-$499,999	1,786,000	12.1
$500,000-$999,999	299,000	2.0
$1,000,000 or more	358,000	2.4
Total	14,741,000	100.0

Source: U.S. Internal Revenue Service, *Statistics of Income, Business Income Tax Returns, annual Income, Corporation Income Tax Returns,* 1977.

terms of these classifications first. (However, it should be noted that some experienced researchers say they have never seen a successful segmentation based on SIC codes. In many businesses they do not demonstrate different reactions to variations in the marketing mix or in terms of the benefits they want. Some believe that in business-to-business research, the trend seems to be away from SIC codes and toward *needs-based* segments.)

Company Size

The next most frequently used a priori basis variable is often company size. Table 3.6 shows the distribution of business sizes in the United States in terms of number of employees. This shows clearly that by far the majority of business firms are small, with annual revenues under $25,000. However, the largest firms account for over 70% of all U.S. industrial production (following the 80-20 principle).

Small businesses of all kinds often have different needs than large ones. They almost always use smaller quantities of supplies, require smaller and cheaper equipment or services, and need more professional services from outsiders (e.g., legal counsel, tax, insurance) that large companies provide in-house. Even within a single industry segment, companies of different sizes have different problems and needs. For example, at banking and savings and loan conferences, all participants attend plenary sessions first and then break into size groups (small, medium, and large) to discuss

mutual problems that are considered different from those of other size groups.

Several U.S. government publications list frequency distributions of company sizes within SIC industry segments (e.g., County Business Patterns, U.S. Censuses of Manufacturers, Wholesale, and Retail Trade). These can be used for a priori segmentation, the same as SIC codes. Or, companies that do custom surveys of businesses in a specialized niche can produce frequency distributions of their own for use on a post hoc basis. Either way, company size can be an important basis variable for the business-to-business market.

Geographic Location

Another widely used basis variable for business markets is the geographic location of customers and potential customers. This is important because most selling to business firms is done on a personal basis, and companies need to know (1) where to locate their sales offices and (2) how many salespeople are needed in each office. It also dictates where manufacturing facilities, warehouses, and branch outlets should be located to provide the best customer service at reasonable cost.

In business-to-business marketing, locations within a segment are contiguous within the same geographic boundaries (in contrast to consumer geodemographics). This makes it easy to draw lines on maps to lay out sales or warehouse area coverages. Geographic segments are usually not too difficult to establish once the right data have been obtained, but they are absolutely essential to companies selling in widely dispersed areas. On the other hand, there are often no demonstrated differences in terms of reactions to variations in the marketing mix among segments.

Key Accounts

Business firms that are so large that they require a special marketing mix by most of their suppliers are known as *key accounts*. They represent the ultimate in market segmentation—segments of one. Examples include individual automobile or airplane manufacturers and giant retailers (e.g., Wal-Mart, Sears). Many large companies that sell to these companies will assign a single sales executive to develop a specific marketing mix for a particular customer's nationwide operations. There are few, if any, counterparts in consumer markets.

Product/Service-Based Basis Variables

Usage Quantity

Because of the wide range of company sizes, as shown in Table 3.6, usage quantity varies infinitely more in business markets than consumer markets. Any giant corporation will buy hundreds or even thousands of times more of most office supplies and equipment than will small companies. For this reason, size of company often is related strongly to the quantities of goods and services that will be needed.

This is not always the case, however. A nationwide department store chain could buy only limited amounts of a certain type of merchandise from suppliers, such as waterbeds or athletic shoes, whereas small local or regional chains that specialize in these lines could buy much larger quantities. This is why usage rates always should be measured directly and not simply inferred from company size. Data of this kind are not normally available from secondary (i.e., published) sources, and they often require a customer survey of some sort. They also could be obtained from internal company records.

Shapiro and Bonoma (1984) have proposed the following framework for industrial segmentation basis variables:

- Demographics,
- Operating variables,
- Purchasing approach,
- Situational factors, and
- Personal characteristics.

They suggest that each of these is "nested" within the ones listed previous to it, in the sense that those first in the list encompass those that follow. Because we have already covered the demographic factors (SIC codes, company size, geographic area) in the previous section, we now turn to several types of "operating" variables.

Type of Application

Corey (1979, p. 4) suggests that the type of application can be a useful basis variable. He states:

> For a great many industrial products, the way the customer uses the product may vary considerably. . . . Buyers of nylon fiber, for example, will include manufacturers of such products as hosiery, rubber tires, parachutes, cordage, fishing rods, and carpets. The manufacturing processes for these products are completely different one from another and the markets in which they are sold are in marked contrast.

Conversely, Corey continues, manufacturers of containers could purchase such fabricating materials as plastic (rigid and flexible), glass, cans (tin and aluminum), cardboard (corrugated and single-ply), wood for crates, large steel drums, and many other materials. Similarly, manufacturing firms that use gears in their production processes or final products have a choice between metal and nylon gears.

Shapiro and Bonoma (1984, p. 106) suggest that a company's technology also has a great influence on its buying needs:

> Soda ash, for example, can be produced by two methods that require different capital equipment and supplies. The production of Japanese color televisions is highly automated and uses a few large, integrated circuits. In the United States, on the other hand, color TV production once involved many discrete components, manual assembly, and fine tuning. In Europe, production techniques made use of a hybrid of integrated circuits and discrete components.

Other ways to segment a market include users versus nonusers of a product/service, or customers versus noncustomers. In some cases, customer capabilities could signal potential market segments. Some customers are not capable of maintaining quality controls on incoming supplies, and some in the chemical industries need the support of suppliers to formulate the compounds they use or sell. Companies that sell to such customers can target the ones that need specialized help of the type they can provide (Shapiro and Bonoma 1984).

Purchasing Process

After demographics and operating variables, another useful approach to segmenting industrial markets is in terms of the purchasing process itself. This can vary from firm to firm in several ways:

- *Organization*—Some companies merge all purchasing units into a single centralized buying group; others decentralize buying into various function or process centers.
- *Power centers*—In some manufacturing companies, engineering has the most influence on specific purchases; in others it has relatively little, and purchasing or financial people have more control.
- *Competitive bidding*—Some companies (especially utilities and government agencies) always require competitive bids and must select the lowest bid that meets specifications; others can request only a single bid.
- *General purchasing policies*—These include the option of leasing, dealing with companies with a strong reputation for environmentalism or affirmative action, buying systems versus individual components, and dealing with long-established companies versus new companies with a reputation for innovation (Shapiro and Bonoma 1984).

Other aspects of the purchasing process that sometimes can be used as basis variables include willingness to try new products and personal relationships between buyer and seller.

Buying Criteria

The criteria used to judge competing offerings can vary considerably from company to company. Some want lowest prices, others want the latest technical sophistication, others want immediate delivery, and still others are concerned mostly with after-sale service. Most want some *combination* of these. These criteria are the industrial parallel of benefits or features wanted in consumer markets. Therefore, they can be expressed as statements that can be rated in importance by each company, and the capabilities of the various competing suppliers also can be rated.

These attribute statements can be used to identify benefit segments, consisting of companies that employ a similar pattern of buying criteria for products or services of a given type. The general procedure is the same as for consumer products and services. As in the case of household consumers, these benefit segments could be the most actionable of all, because they represent what buyers really are looking for in any purchase. A recent proprietary study of personal computer dealers throughout the United States, conducted by this writer, produced 5 clear benefit segments; as a result, the sponsoring company planned to develop marketing programs for 2 of them.

COMMENT

Although this chapter has presented and illustrated the most common basis variables for both consumer and business-to-business segmentation, it has provided little in the way of direction for choosing among the different types for any given study. Even though accurate generalizations are impossible when different companies' segmentation needs vary so widely, it should be possible to offer at least some guidance as to what types of basis variables are likely to be most useful/productive/actionable.

As stated previously, if there is any single "best" way to approach segmentation efforts, it is often by focusing on the heaviest users of a consumer product or service, where meaningful. These are the people who create the most demand. Then efforts can be made to learn everything possible about them (e.g., demographics, psychographics, attitudes toward the product category, benefits/features especially desired, usage patterns and needs). Marketing programs based on all of this information should produce results that can make a real difference.

On the other hand, almost all major competitors in a market know how to do this kind of segmentation, so it loses its ability to provide a sustainable competitive advantage. Also, some product/service categories do not have a sizable group of heavy users. In recent years, more and more companies prefer to focus on the basic *benefits* people want to satisfy certain types of *needs* they have. Stewart (1994) observes:

> [The approaches in this chapter] appear to be a laundry list of all the ways people have segmented markets over the years, including approaches that I don't think have much to recommend them. Perhaps another way to treat the same material, but provide greater guidance, would be to suggest that the identity segments should be based on drivers of demand (needs, decision rules, etc.), but that there are many other ways to describe segments once they have been identified. In some cases these descriptors must be used as surrogates for the fundamental demand drivers, while in other cases the descriptors have value in their own right for informing such decisions as media scheduling, site location, etc.

I am in strong agreement with this point of view. In particular, drivers that have been gaining in popularity in recent years involve the basic benefits people want, attitudes toward a product/service category, and unmet needs. Segments based on wanted benefits are often referred to as "needs-based" segments. They are often the best way to segment both consumer and business-to-business markets in today's highly competitive business environment, because they identify fundamental buying objectives.

Figure 3.4 Ways to Segment Markets

- Marketing mix:
  - Product/service
  - Price
  - Promotion
  - Distribution
- *User* characteristics:
  - Consumer: demographics, geographic area, lifestyles, psychographics, attitudes, etc.
  - Business: size, SIC, area, internal structure
- *Usage* characteristics:
  - Usage rates, usage patterns, brand loyalty
- Needs-based:
  - Benefits wanted
  - Imagery
  - Unmet needs

SUMMARY

Segmentation probably began when early craftsmen and traders realized that markets could be differentiated in terms of elements of the marketing mix. Later, companies thought in terms of obvious differences in *user* characteristics, and then in usage patterns. Only in recent years have market planners begun to think first of basic needs and wants of customers when designing the marketing research required to support market planning efforts. Therefore, the historical development of market segmentation efforts might look like the sequence shown in Figure 3.4. This provides a framework for segmentation research and for selecting among various basis variable options for a given study.

CHAPTER 2

INTRODUCTION TO MARKET SEGMENTATION

One of the most important strategic concepts contributed by the marketing discipline to business firms and other types of organizations is that of market segmentation. Many people believe that segmentation is the key strategic concept in marketing today. Its basic proposition is that most (probably all) markets are not monolithic but instead consist of submarkets that are relatively homogeneous in terms of what they need or want from firms offering similar types of products or services. A more formal definition is the following:

> Market segments consist of groups of people or organizations that are similar in terms of how they respond to a particular marketing mix or in other ways that are meaningful for marketing planning purposes.

A market can consist of subgroups that are similar in certain ways (e.g., demographics, lifestyles, type of business/industry). But unless these subgroups have different needs, values, or desires; respond to a specific marketing program differently than other groups; or are otherwise useful for marketing planning purposes; they are not called market segments and are not considered useful by marketing practitioners.

CONCEPTUAL FRAMEWORK

Though the general concept of market segmentation first was presented formally by Wendell Smith (1956), markets had been segmented for many decades and even longer prior to this. Probably the earliest form of segmentation was based on one or more elements of the marketing mix (product, price, promotion, distribution). Even in the ancient world, merchants very likely catered to markets that differed in terms of the type or quality of product or service desired, acceptable price levels, and/or the method of distribution required.

In the United States, Henry Ford said, "The customer can have any color of car he wants, as long as it is black," and in the early 1900s, he made only one style of car at a time (Model T, Model A). In contrast, Alfred Sloan of General Motors (GM) offered "a car for every purse and purpose," and in the 1920s, GM's sales surpassed those of Ford and have continued to do so to this day. Thus, the basic concept of segmenting markets has been around for a very long time.

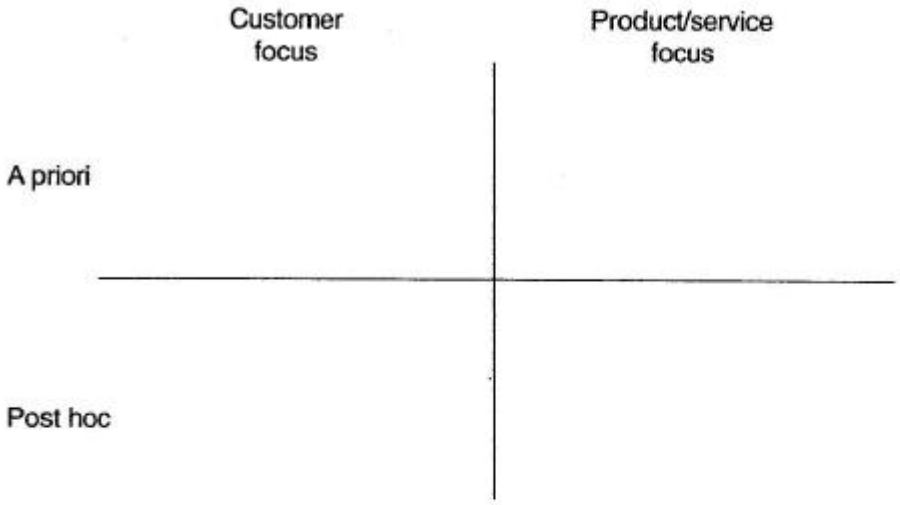
In this book, we do not discuss segmentation based on elements of the marketing mix but instead focus on the two major types of classification schemes that currently are used most often as conceptual frameworks for segmentation efforts:

- customer-based versus product/service-based.
- a priori versus post hoc (a posteriori).

A customer-based approach involves looking at the specific characteristics of customers that differentiate them in ways that are meaningful for marketing planning purposes (e.g., demographics, values, needs). In contrast, a product-based approach deals with specific physical features of products or services themselves, the types of benefits customers want from them, usage rates or patterns, or other aspects of the product or service or the usage situation.

In the other classification scheme, a priori segmentation designates groups of consumers who are similar in terms of some factor or factors that are known or believed in advance to be related to consumption of a company's product/service; for example, demographics, purchase volume, geographic area. When cross-tabulating results from customer surveys, a priori segmentation variables are selected *before* analysis begins. (They usually are shown as columns in a cross-tabulation analysis; demographics are common examples.) In contrast, post hoc segments are based on responses that are available only *after* a survey has been conducted, such as values, needs, usage rates and patterns, attitudes, and perceptions that might signal useful market segments. These two classification schemes are not mutually exclusive, as shown in Figure 2.1.

Figure 2.1 Alternative Segmentation Approaches



Within this framework, marketing practitioners have wide latitude in selecting specific factors on which to focus as well as methodologies to use to segment a market. This is why market segmentation efforts can be so complicated and require so much thoughtful planning prior to execution.

In this book we simplify matters by thinking primarily in terms of a priori versus post hoc types of segmentation approaches. These techniques can be used on both customer and product/service variables that are included in a particular customer survey. Thus, we focus only on segmentation based on results from *surveys* of customers or potential customers, using responses to structured questionnaires.

GENERAL PROCEDURE FOR SEGMENTING MARKETS

In spite of the wide variety of possible approaches, most segmentation efforts can be characterized by a common framework consisting of the following steps:

- Decide on segmentation variables (called basis variables),
- Decide on data analysis methodology,
- Apply methodology to identify several segments,

- Profile/describe all segments using basis and other variables,
- Select target segment(s) to pursue, and
- Develop a marketing mix for each target segment.

As discussed previously, basis variables can be either customer or product related, and they can be decided on either prior to or during data analysis. At the extreme, any single question or series of related questions can be the basis for identifying a promising market target.

As an example of this, in one portion of an unpublished survey of residential telephone subscribers, AT&T asked a few questions about the costs of long-distance telephone calls. It was found that about 15% of respondents overestimated the true costs by a substantial amount. Designating these people as a target segment, the company designed an advertising campaign to inform them that long distance costs were much lower than they thought and gave specific examples to support this claim. A before-and-after experiment (with control group) showed that long-distance calling increased substantially among the target segment, yielding profits much greater than the incremental advertising cost. This is an unusually well-documented example of "profitable segmentation."

Although segmentation need not be any more complicated than this, it is often the case that more complex or sophisticated approaches are needed to identify other types of segments that might be even more useful. These latter are the approaches we focus on here. They include such basis variables as usage rates and patterns, attitudes toward a product/service category, product or brand attribute ratings, benefits or product features desired, lifestyle/psychographic items, usage occasions or situations, buying purposes (e.g., gifts), and, of course, demographics. Basis variables of this type can provide the market planner with insights and understanding of the market that would not otherwise be available.

Decide on Basis Variables

The first step in a segmentation study is to decide which basis variables to use. How does one know in advance which basis variables and general analytical approach are likely to be the most valuable and useful? Although there usually is not a clear answer to this, it is helpful to start by discussing with management the ultimate objectives of the segmentation effort. For example, some common objectives include the following:

- Identifying and characterizing heavy users
- Focusing advertising efforts for greater impact
- Identifying likely targets for new technologies or new product formulations
- Improving existing product/service design
- Looking for new product/service opportunities
- Assessing the impact of a competition's new offering
- Establishing a better brand or corporate image.

These are not mutually exclusive. The identification of heavy users can be helpful for planning better advertising and promotion efforts, but it will not necessarily lead to improved product/service design unless the proper basis variables have been included in the survey. Therefore, time spent up front in clarifying the specific purposes and ultimate uses of segmentation efforts will help to ensure that appropriate data are gathered. This is much better than simply saying, "Let's do a segmentation study," or even "We need a better understanding of our market(s)," as is often done. As sensible as these statements sound, they do not provide enough specific guidance for designing the most useful segmentation study. The net outcome is often disappointing. Good segmentation studies are not simply "off the shelf."

Decide on Data Analysis Methodology

A wide variety of data analysis techniques is available for market segmentation purposes. They range from simple tabulations and cross-tabulations to sophisticated statistical analysis tools that simultaneously consider a great many variables. These latter are known as *multivariate analysis* techniques. Chapters 3, 4, and 5 describe several that are most widely used for segmenting consumer markets. The analyst must choose the most appropriate ones for each particular application and objective. Sometimes this is easy, other times it is difficult. The chapters that follow can help in making these choices.

Apply Methodology to Identify Several Segments

Once the purpose of a segmentation study has been decided on and basis variables have been selected, the next step is to identify a reasonable number of segments. It is often the case in a large survey that several different *numbers*

of segments can be formed that are clearly different from one another, both statistically and judgmentally. Sometimes the biggest problem for the analyst is that of deciding which of several possible legitimate solutions makes the most sense. Also, segments can be formed by combinations of survey variables (e.g., demographics and attitudes), further adding to the complexity.

An extreme example of the "number of segments" problem occurred in a proprietary study conducted by this writer involving a sample of 50,000 subscribers to a type of customized financial service. The basis variables included over 100 items from the Censuses of Population and Housing. Management believed the company could design effective marketing programs for "many" different target segments using direct mail solicitations, and requested that large numbers of segments be formed. Accordingly, separate computer analysis runs produced the following numbers of segments: 50, 60, 70, 80, 90, and 100. However, careful analysis of all solutions revealed that only about 15 of the segments that emerged from any of the runs were of sufficient size and clarity to be actionable by the company. Even this number was greater than that for which the company could design good marketing programs, it subsequently was decided. Wind (1978, p. 330) reports similar findings.

Select Target Segments

It is often the case that even the simple segmentation approaches yield several interesting segments, and this is almost always true of the more complicated approaches. How do marketing planners decide which ones are likely to be most promising? Sometimes this is a matter for considerable debate among management and research people.

Often the most obvious answer is to target the segment with the most *heavy users*. On the surface this makes the most sense; however, there can be good reasons that such an approach is not the most promising one:

- One or more major competitors already may have targeted this group successfully,
- The company product/service line is not especially well designed for this group,
- There are no really heavy users; nearly all individuals (or households) consume about the same amounts of a product/service (e.g., toothpaste, pet food, shampoo),