

Marketing Science no.4

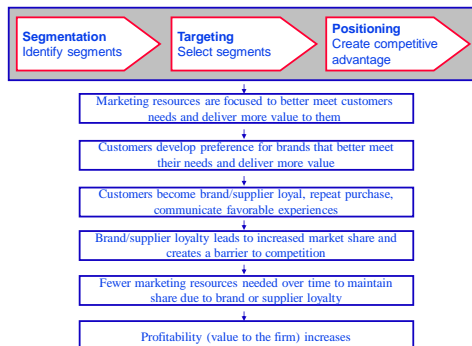
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Segmentation and Targeting



- ❑ Concepts: STP
- ❑ Methods
- ❑ Case Intros

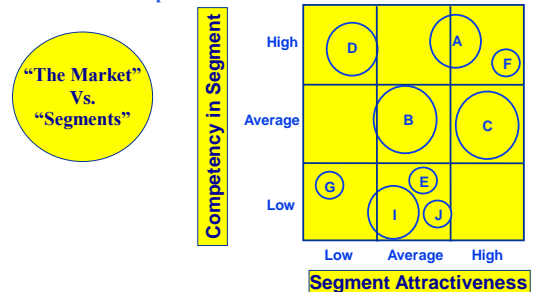
How STP Creates Value



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Find Value-Based Segments

- ❑ Evaluate competencies vs. attractiveness



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Market Segmentation

- ❑ Market segmentation is the subdividing of a market into distinct subsets of customers.

Segments

- ❑ Members are different between segments but similar within.

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Markets are Dynamic

- Segments may be unstable over time
 - Buyer behavior changes
 - Competitors change
 - The business environment changes
- This means that it is important to view segmentation as . . .
 - A process to support business decisions
 - Not a static classification of the market

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The Many Uses of Segmentation

Short-term segmentation applications:

- Salesforce allocation/call planning
- Channel assignment
- Communication program development: spending, allocation and messaging
- Pricing

Focus on today's competitors and my current relative advantage to the customer

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The Many Uses of Segmentation

Longer term:

- Emerging needs (Opportunity-focused segmentation)
- New and evolving segments to serve
- Planning for segment development/growth and anticipating competitive threats
- Key-influencer spill-over

Market driving (vs. customer focused)

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Currently, Most Segmentation Projects Provide....

Insights...



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SAMPLE SEGMENTATION STUDY FOR A HEADACHE REMEDY

Headache	Chronic Combatants	Reluctantly Reliants	Super-Stressed Reactionaries	Savvy Functionalists	Disciplined Bodies
% Adults:	100%	14%	12%	17%	17%
First 30 Day Headache:					
Sufferers	100%	13%	18%	19%	13%
Volume	100%	23%	14%	16%	25%
Med Treaters	100%	12%	18%	21%	17%
Med Volume	100%	25%	15%	17%	16%
% Suffer Regularly	82%	58%	22%	82%	65%
Regularly	25%	20%	25%	18%	8%
Severity of Headache (0-10 scale)	4.4	3.7	4.9	3.3	3.3
% of All Headaches:					
% Mild / Moderate	100%	12%	18%	12%	13%
% Severe	100%	9%	28%	9%	19%
% Migraine	100%	12%	18%	11%	12%
Share of Pain Days:					
% Mild / Moderate	200%	100%	100%	100%	100%
% Severe	35%	38%	65%	68%	65%
% Migraine	22%	15%	25%	14%	15%
Reaction to Headache	Sharply Limits Life	Concern	Upsetting, Distraction From Responsibilities	Reaches for the Cure (Med) Quickly	Treat Anxiously
Treatment	Mostly Rx, OTC, With Non-meds	Rx and OTC ... Reluctant	Pd off To Severe, Then OTC Meds	OTC Meds at First Tinge	Most About OTC Meds
Desired Med Aspects	Powerful, Long-lasting, Painless	Safe	Immediate	Fast	No Side Effects
Targeting Opportunities					

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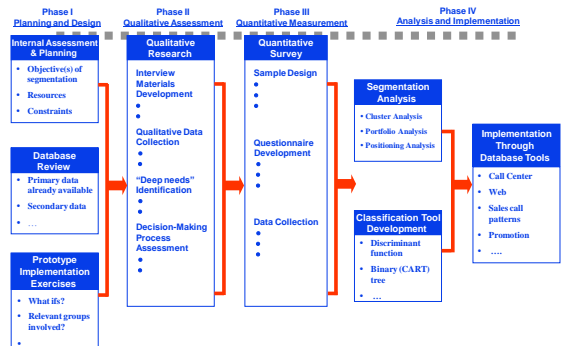
In the Final Analysis....

Little Measurable Value
Most segmentation projects are one-time Projects that drain resources



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A Four-Phase Process for Successful Segmentation Analysis Project



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Primary Characteristics of Segments

- ❑ **Bases**—characteristics that tell us why segments differ (e.g., needs, preferences, decision processes).
- ❑ **Descriptors**—characteristics that help us find and reach segments.

(Business markets) (Consumer markets)

Industry	Age/Income
Size	Education
Location	Profession
Organizational structure	Life styles
	Media habits

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Variables to Segment and Describe Markets

	Consumer	Industrial
Segmentation Bases	Needs, wants benefits, solutions to problems, usage situation, usage rate.	Needs, wants benefits, solutions to problems, usage situation, usage rate, size*, industrial* (=macro-bases)
Descriptors		
Demographics	Age, income, marital status, family type & size, gender, social class, etc.	Industry, size, location, current supplier(s), technology utilization, etc.
Psychographics	Lifestyle, values, & personality characteristics.	Personality characteristics of decision makers.
Behavior	Use occasions, usage level, complementary & substitute products used, brand loyalty, etc.	Use occasions, usage level, complementary & substitute products used, brand loyalty, order size, applications, etc.
Decision Making	Individual or group (family) choice, low or high involvement purchase, attitudes and knowledge about product class, price sensitivity, etc.	Formalization of purchasing procedures, size & characteristics of decision making group, use of outside consultants, purchasing criteria, (de)centralizing buying, price sensitivity, switching costs, etc.
Media Patterns	Level of use, types of media used, times of use, etc.	Level of use, types of media used, time of use, patronage at trade shows, receptivity of sales people, etc.

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Managing Segmentation

1. Define segmentation problem
2. Conduct market research
3. Build segmentation database
4. Define market segments
5. Describe market segments
6. Implement results!

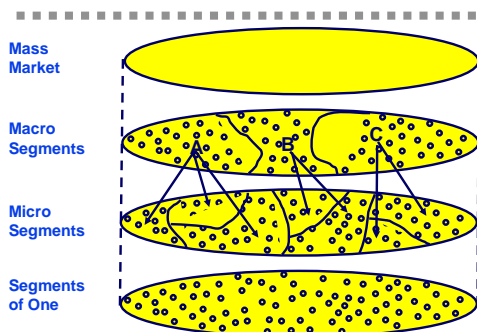
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1. Define Segmentation Problem

- ❑ View market segmentation problem as a series of hierarchical stages -- for example
 - Identify broad strategic “macro-segments” that effectively define market structure
 - ❑ Industry groups
 - ❑ Product usage (rate of usage, application, etc.)
 - ❑ Geographic location, etc.
 - Within macro-segments, conduct research to find “micro-segments” for competitive advantage
 - ❑ Segmentation on buyer needs and value
 - ❑ Segmentation on product benefits

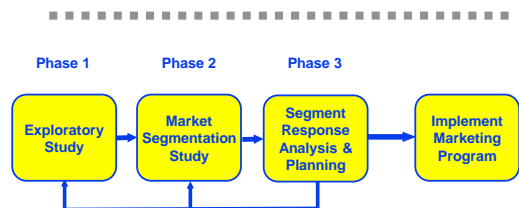
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Levels of Segmentation



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2. Conduct Market Research



Market research supports the segmentation process

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3. Build Segmentation Database

Org #	BC #	Resp #	Importance ratings 1.....k	Competitor perceptions 1.....f	Usage variables 1.....s	Response variables 1.....t	Demog 1.....v	Importance Factors 1.....m<k
1	1	1	8	9	9	...	etc.	
1	1	2	3	4	9	...		
1	1	3	2	5	8	...		
1	2	1	9	8	8	...		
1	2	2	9	6	2	...		
1	2	3	9	8	9	...		
1	2	4	8	6	3	...		
2	1	1	etc.					
2	1	2						
2	1	3						
etc.								

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4. Define Market Segments

- Assume the following data matrix includes the responses from six customers on four key components of value (10 point rating scale of importance)
- How would you segment this "market"?

Customer	Importance of Durability	Importance of Service	Importance of Ease of Use	Importance of Price	Cluster Assignment
1	9	4	5	6	
2	3	5	10	5	
3	4	5	5	10	
4	10	6	7	6	
5	5	5	7	10	
6	6	3	9	5	
"Market"	6.2	4.7	6.3	7.0	X

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5. Describe Market Segments

- Suppose the market for 300 users of industrial adhesives were represented by the table below

```

graph TD
    A([Organization size as a descriptor]) --> B[Organization size]
    C([Segments based on needs]) --> D[Price sensitive]
    C --> E[Durability sensitive]
    C --> F[Service sensitive]
    B --- D
    B --- E
    B --- F
    D --- G[30]
    E --- H[20]
    F --- I[50]
    G --- J[Large]
    H --- J
    I --- J
    J --- K[Medium]
    K --- L[50]
    K --- M[20]
    K --- N[30]
    L --- O[Small]
    M --- O
    N --- O
    
```

The diagram illustrates the relationship between organization size and segments based on needs. Organization size is a descriptor, and segments based on needs are categorized by price sensitivity, durability sensitivity, and service sensitivity. The data is presented in the following table:

Organization size	Price sensitive	Durability sensitive	Service sensitive
Large	30	20	50
Medium	50	20	30
Small	20	60	20

- What can we conclude from this table?

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Industrial Adhesive Buyers

	Segment 1 "Speedo's"	Segment 2 "Experts"	Segment 3 "Greedies"	Segment 4 "Greenies"
	N=52 (21%)	N=85 (35%)	N=78 (32%)	N=30 (12%)
Needs	Want speed of delivery and no problems	Want full line of products that help them solve customer problems	Want everything: full product line, speed of delivery, eco-safe products	Want ecologically friendly products
% rating new "concept" as "very good"	5%	65%	32%	22%
% who would "definitely buy" at 10% more than current price	2%	38%	15%	43%
Usage index (% volume)	20%	55%	10%	15%
% large firms	10%	20%	60%	10%

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Respondent Selection/Aggregation Issues

- Who makes the purchasing decision?: DMU (decision making unit)?
- Roles of individuals
 - Purchasing agent?
 - User?
 - Specifier?
 - Gatekeeper?
 - Financial analyst?
- How many respondents per unit?
- If more than one, how to aggregate?

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Segmentation: Methods Overview

- Factor analysis (to reduce data before cluster analysis).
- Cluster analysis to form segments.
- Discriminant analysis to describe segments.

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Cluster Analysis for Segmenting Markets

- ❑ Define a measure to assess the similarity of customers on the basis of their needs.
- ❑ Group customers with similar needs. The software uses the “Ward’s minimum variance criterion” and, as an option, the K-Means algorithm for doing this.
- ❑ Select the number of segments using numeric and strategic criteria, and your judgment.
- ❑ Profile the needs of the selected segments (e.g., using cluster means).

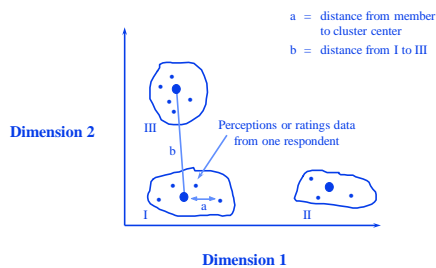
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Cluster Analysis Issues

- ❑ Defining a measure of similarity (or distance) between segments.
- ❑ Identifying “outliers.”
- ❑ Selecting a clustering procedure
 - Hierarchical clustering (e.g., Single linkage, average linkage, and minimum variance methods)
 - Partitioning methods (e.g., K-Means)
- ❑ Cluster profiling
 - Univariate analysis
 - Multiple discriminant analysis

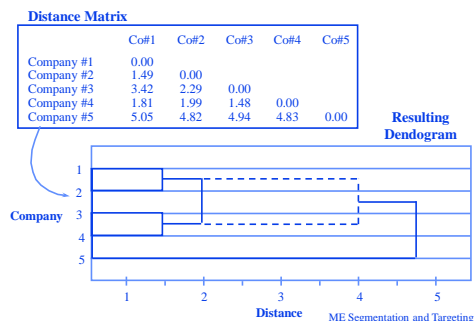
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Doing Cluster Analysis



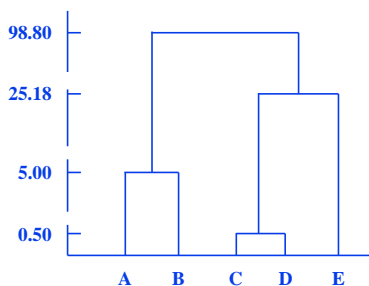
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Single Linkage Cluster Example



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Ward’s Minimum Variance Agglomerative Clustering Procedure



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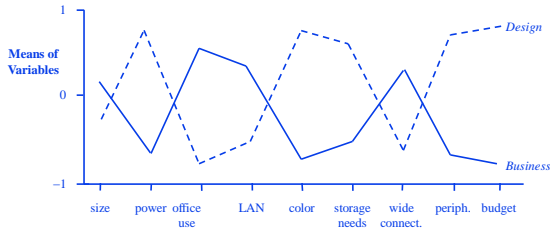
Interpreting Cluster Analysis Results

- ❑ Select the appropriate number of clusters:
 - Are the bases variables highly correlated? (Should we reduce the data through factor analysis before clustering?)
 - Are the clusters separated well from each other?
 - Should we combine or separate the clusters?
 - Can you come up with descriptive names for each cluster (eg, professionals, techno-savvy, etc.)?
- ❑ Segment the market independently of your ability to reach the segments (i.e., separately evaluate segmentation and discriminant analysis results).

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Profiling Clusters

Two Cluster Solution for PC Data: Need-Based Variables



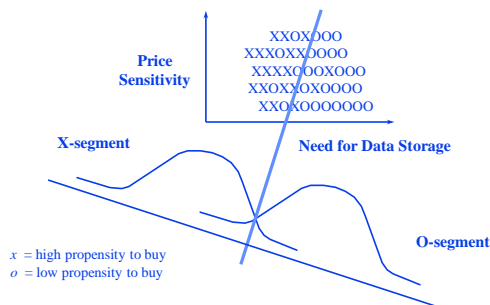
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Discriminant Analysis for Describing Market Segments

- ☐ Identify a set of “observable” variables that helps you to understand how to reach and serve the needs of selected clusters.
- ☐ Use discriminant analysis to identify underlying dimensions (axes) that maximally differentiate between the selected clusters.

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Two-Group Discriminant Analysis



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Interpreting Discriminant Analysis Results

- ☐ What proportion of the total variance in the descriptor data is explained by the statistically significant discriminant axes?
- ☐ Does the model have good predictability (“hit rate”) in each cluster?
- ☐ Can you identify good descriptors to find differences between clusters? (Examine correlations between discriminant axes and each descriptor variable).

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Managerial Uses of Segmentation Analysis

- ☐ Select attractive segments for focused effort (Can use models such as Analytic Hierarchy Process or GE Planning Matrix, or Response Model).
- ☐ Develop a marketing plan (4P's and positioning) to target selected segments.
 - In consumer markets, we typically rely on advertising and channel members to selectively reach targeted segments.
 - In business markets, we use sales force and direct marketing. You can use the results from the discriminant analysis to assign new customers to one of the segments.

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Checklist for Segmentation

1. Is it values, needs, or choice-based? Whose values and needs?
2. Is it a projectable sample?
3. Is the study valid? (Does it use multiple methods and multiple measures)
4. Are the segments stable?
5. Does the study answer important marketing questions (product design, positioning, channel selection, sales force strategy, sales forecasting)
6. Are segmentation results linked to databases?
7. Is this a one-time study or is it a part of a long-term program?

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Segmentation Summary

In summary,

- ❑ Use needs variables to segment markets.
- ❑ Select segments taking into account both the attractiveness of segments and the strengths of the firm.
- ❑ Use descriptor variables to develop a marketing plan to reach and serve chosen segments.
- ❑ Develop mechanisms to implement the segmentation strategy on a routine basis (one way is through information technology).

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