Case

ABB Electric Segmentation

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1. Before beginning any case, students should familiarize themselves with the model being used. Marketing Engineering for Excel comes with tutorials that demonstrate the capability of each model. The tutorial can be found under each model within the ME►XL menu after starting Excel. These tutorials are designed to work with our OfficeStar examples which are located in the My Marketing Engineering directory, usually installed in My Documents during software installation.
2. The data required for this case is located in the **My Marketing Engineering** directory (usually located within My Documents):

   ABB Electric Data (Customer Choice).xls

ABB Electric History

In March 1970, ABB Electric was incorporated as a Wisconsin-chartered corporation with initial capital provided by ASEA-ABB Sweden and RTE Corporation. The new firm's management was to operate independently of the parent company. The company mission was to design and manufacture a line of medium-sized power transformers to market in North America. The firm produced such electrical equipment as transformers, breakers, switchgears and relays used in distributing and transmitting electrical energy. Four main types of customers buy this electrical equipment: (1) investor-owner electrical utilities (IOUs), the largest segment; (2) rural electrification cooperatives (RECs); (3) municipalities; and (4) industrial firms. Most of ABB Electric's customers were electrical utilities.

Situation in 1974

After three years of operation, ABB Electric was approaching the breakeven point when it encountered a serious problem. Its market share in 1974 was around six percent. In 1974, total industry sales of electrical equipment dropped 50 percent compared to 1973. Further, ABB Electric was a small player in an industry dominated by large competitors such as General Electric, Westinghouse and McGraw-Edison.

ABB Electric faced several other issues at this time. The salesforce relied on traditional methods of selling and was not well focused. The salespeople acted independently and did whatever they thought they needed to do to close sales quickly. At the same time, the board of directors was pushing for standardization of products and cost reduction. The board felt that to compete

effectively against the larger companies and to improve its current position of marginal profitability, ABB Electric would need a cost advantage. The directors thought this particularly important because all the major competitors made good-quality products that were similar to ABB Electric's. ABB Electric would have to find some way to differentiate itself in the marketplace.

Virtually all of ABB Electric's sales were to one type of customer, the investor-owned electrical utilities. Because these utilities already had substantial inventories, sales to this group were projected to fall as much as 80 percent per year for the next two or three years. ABB's salesforce focused most of its effort on this market segment. As a result the company had little penetration among the over 3,000 RECs and over 100,000 small municipalities and industrial companies who tended to purchase occasionally or only once. Westinghouse, General Electric, and McGraw-Edison were well-established, long-time suppliers to RECs, municipalities and industrial customers.

New Strategy at ABB Electric

ABB Electric's research indicated that the market for electrical equipment would remain flat well into the 1980s. This would cause downward pressure on the prices of all products sold to customers in this market. Daniel Elwing, president and CEO of ABB Electric, concluded that the only way ABB Electric could grow in this environment would be to increase its market share. This meant that ABB Electric had to steal customers away from its competitors.

To support its new marketing strategy, ABB Electric decided to develop a marketing information system (MKIS) to support decision making. To seed the MKIS database, ABB Electric hired a marketing research firm to conduct a survey to provide information about customer needs. This firm thought that it was critical that ABB Electric understand the diverse problems and needs of its potential customers better than its competitors. It also felt that such information would be useful for segmenting the electrical equipment market and would contribute toward making ABB Electric a customer-driven company. ABB Electric hired Professor Dennis H. Gensch to develop segmentation models and to show its employees the value of using formal models to implement its segmentation strategies.

Establishing the MKIS program

ABB Electric hired a marketing research company to design a survey to determine the product attributes most important to current and potential customers. A pretest questionnaire asked electrical equipment purchasers to rate the importance of 21 product and service attributes (e.g., maintenance requirements, invoice price and warranty) and then to rate the major suppliers in the industry on a poor to good scale on each attribute.

The firm used factor analysis techniques to analyze the responses to determine nine important and fairly independent attributes that influence the purchase of electrical equipment. It mailed its final questionnaire to 7,000 key decision makers at utilities, RECs, municipalities and industrial firms who purchase electrical equipment. Respondents evaluated each supplier known to them on the nine selected attributes. They also gave an overall rating to each supplier and indicated the supplier from whom they had purchased a particular type of equipment the last time they purchased it. The firm received completed questionnaires from 40 percent of the sample. In a follow-up phone check of nonrespondents, it detected no significant nonresponse bias. This data formed the nucleus of the MKIS database.

Supplier Performance Rating

List the suppliers you are considering or would consider when purchasing your next substation:

_____ _____

_____ _____

_____ _____

For each supplier on your list, indicate your perception of this supplier on the following attributes:

Invoice Price	Poor	Good
Supplier A	|----------|	
Supplier B	|----------|	
Supplier C	|----------|	
Supplier D	|----------|	

Exhibit 1: Sample Survey Question

Data analyses indicated that the following attributes were the most important to customers when deciding to purchase electrical equipment (not in order of importance):

- Invoice price
- Energy losses
- Overall product quality
- Availability of spare parts
- Problem-solving skills of salespeople
- Maintenance requirements
- Ease of installation
- Warranty

Professor Gensch held the view that different segments of customers would weight these attributes very differently in selecting suppliers, partly because they differed in technical sophistication and partly because they were subject to different salesforce call patterns and different promotional efforts. After reviewing the data, the marketing staff decided on three ways to distinguish between companies: by type, size and geographic location.

Choice Modeling

In addition to determining the important attributes as stated by customers, Professor Gensch suggested that ABB Electric determine the most important factors based on the supplier choices customers actually made. He thought that what customers say is important may not match what actually is important when they decide on suppliers. To get at this, he developed a choice model based on multinomial logit analysis. He then developed a segmentation scheme based on the probability that a customer would choose a particular supplier (the probabilities sum to 1 for each customer):

ABB Electric Loyal Segment (Loyal): Customers in this segment have a probability of purchasing from ABB Electric that is *significantly higher* than the probability that they would buy from the next closest competitor.

Competitive Segment (Competitive): Customers in this segment have a *slightly higher* probability of purchasing from ABB Electric than from the next most preferred supplier. Thus the probability of purchasing from ABB Electric is highest, but not significantly above the probabilities of purchasing from one or more competitors.

Switchable Segment (Switchable): Customers in this segment have a *slightly lower* probability of purchasing from ABB Electric than their most preferred supplier. Thus the probability of purchasing from a competitor is highest, but not significantly higher than the probability of purchasing from ABB Electric.

Competitor Loyal Segment (Lost): Customers in this segment have a *significantly lower* probability of purchasing from ABB Electric than from their most preferred supplier. Thus these customers are highly likely to buy only from a competitor and can be classified as lost customers.

ABB Electric used this segmentation scheme to focus its sales effort primarily at the Competitive and Switchable segments. It redesigned its entire marketing program with this in mind. The salesforce spent more time calling on prospects in these segments. ABB customized its brochures to focus on the "hot buttons" specific to each segment. Most important it continuously updated the MKIS database with new data, and it institutionalized this approach to targeting across the organization.

Postscript: Situation in 1988

ABB Electric has strengthened its position well beyond expectations. Its market share reached 40 percent in 1988. Along with a larger market share came improvements to its profitability. The overall market remains flat, and forecasters predict that it will remain flat into the near future. However, ABB Electric was able to establish a competitive edge against much larger competitors.

EXERCISES

Suppose you are the regional sales manager for ABB Electric, and you have been given a budget for a supplementary direct marketing campaign aimed at 20 percent of the companies in your region.

1. At present you have information on the Descriptor Data tab of the **ABB Electric Data (Customer Choice).xls** spreadsheet about the location of customers (districts 1, 2 and 3) and the sales potential of each account or prospect. Based on this information alone, to what companies would you direct the new direct marketing program? Specify the accounts and customer or prospect types.
2. Use the choice modeling approach based on the responses provided by 88 firms from your region. The data consists of the evaluation of ABB Electric and the three main competitors on eight variables: (1) Price, (2) Energy losses, (3) Maintenance requirements, (4) Warranty, (5) Availability of spare parts, (6) Ease of installation, (7) Salesperson problem solving support and (8) Perceived product quality. Perform a customer-loyalty–based segmentation for your customers and prospects.
    - Which variables are the key drivers of choice in this market?
    - Based on your analyses, on which firms would you focus your efforts? Why?
3. Assume that marketing efforts targeted at companies in the Loyal and Lost categories result in no incremental gain. On the other hand, suppose that you could retain or win half the companies in the Switchable and Competitive segments with this program. How much improvement in sales productivity can you realize by applying this choice model to the allocation of your efforts?
4. What other recommendations would you offer to ABB Electric to improve its segmentation marketing program?
5. Comment on the uses and limitations and possible extensions of this modeling approach.

[1] This case describes a real situation using hypothetical data.