

Understanding Customer Choice: Getting The Product Right

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Abstract: *Creating products that deliver real value to customers is difficult. Understanding how customers actually chose products in the market place is a proven approach to identifying value that has been used with great success in many industries. Page Mill Marketing's experience in applying this methodology to high-tech markets can to help you get the answers that you need to create winning products.*

Winning With New Products

Successful new product introductions are critical to the survival of any technology company. Marketing and engineering teams developing new products face critical implementation choices. Tight schedules, limited resources and technical challenges require decisions about what to do and what not to do. Many questions need to be answered in order to succeed. Do customers value feature A over feature B? If so, how much more are they willing to pay? Will a feature be worth the engineering investment to achieve it? What is the right price point? What market share can the product be expected to win?

In most high-tech companies getting answers to these questions involves direct customer feedback, discussions with knowledgeable sales or applications people and long discussion between the engineering and marketing teams. All of these avenues provide good data. In fact, these discussions are an essential part of good product planning. However, the output of this qualitative process is often confusing. Conflicting opinions make it difficult to judge exactly which items are really more important than others and what makes for the best feature set in a product.

Fortunately, getting answers to these questions can be straightforward given the right methodology. There's a proven approach for getting meaningful answers to these questions that has been widely used in consumer applications for thirty years. The method involves analyzing how customers chose products in a way that makes it clear how choices were made and how much influence each feature has on choice. With quantitative data derived from this method, the features of a hypothetical new product can be optimized and it can be compared to existing competitive products to understand how it will fare.

The Feature-Value Method

This approach, that I call the Feature-Value Method (conjoint analysis in the marketing research literature), has been in use for thirty years in consumer applications and Page Mill Marketing has experience applying it in a variety of high-tech applications. When customers evaluate products, they are forced to make a number of tradeoffs. Rarely do they find a product with the right performance and correct feature set at the best price. The “best” product for a customer is usually a compromise among price, performance, features, quality and ease of use. The usual marketing methods that ask customers about features in isolation misses this key point. The problem of feature selection when creating new products is not; what would the customer want if he could have anything; but what will he choose if he has to make trade-offs.

The basic idea in the Feature-Value methodology is simple: ask customers to choose hypothetical new products from a set of possibilities just as they would if they were actually evaluating product choices in the market. In practice, we ask customers to review and rate a set of sample product configurations with different feature combinations at varying price points. This requires that customers make the same kind of trade-offs that they would make while making actual product choices.

Customers are asked to rank 9 to 16 hypothetical products. Each product consists of a product description with 4 to 6 features including price. When the set of hypothetical products is correctly chosen, the relative value of each of the features can be calculated from the customer choices. This provides quantitative data about what happens if feature A is scaled back in favor of feature B or what happens to the product’s attractiveness if the price is raised by 20%. With this information at hand, it’s possible to compare the relative return among alternative development strategies and even see how attractive a new product will be compared to competitive offerings.

A hypothetical example using credit cards will help illustrate the outputs of the method. In this case, four features including price describe the credit cards. Based on customer ratings of a sample of these cards, we can graph the relative importance of features (Figure 1), show how the demand curve will vary with price (Figure 2) and forecast share of preference against a competitive card (Figure 3).

Figure 1. Data from customer responses are analyzed to show which features are the most important to customers.

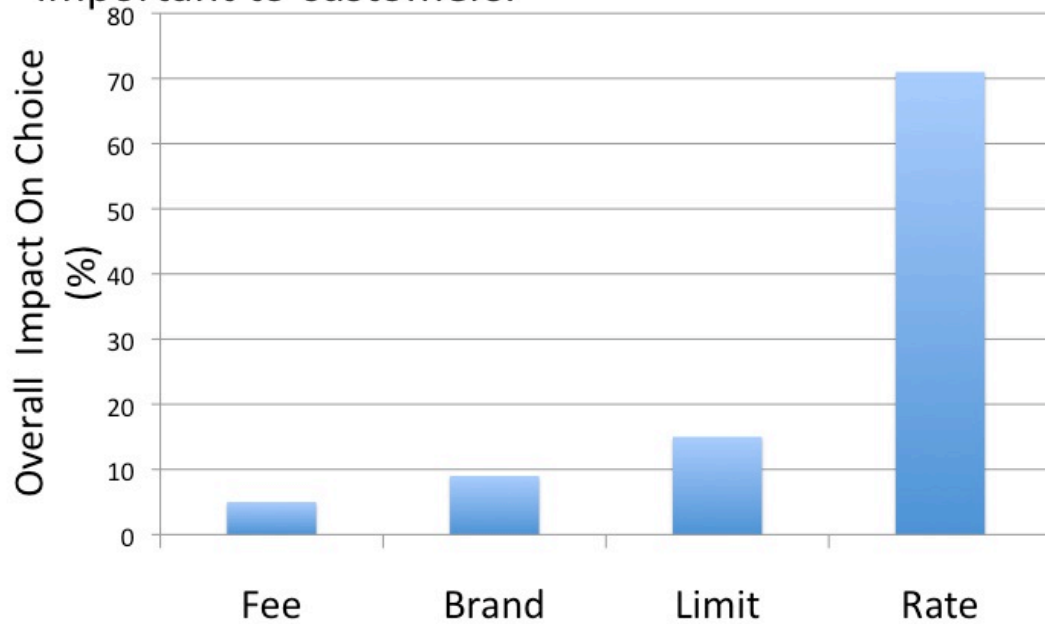


Figure 2. Analysis shows how differences in a single feature affects purchase behavior.

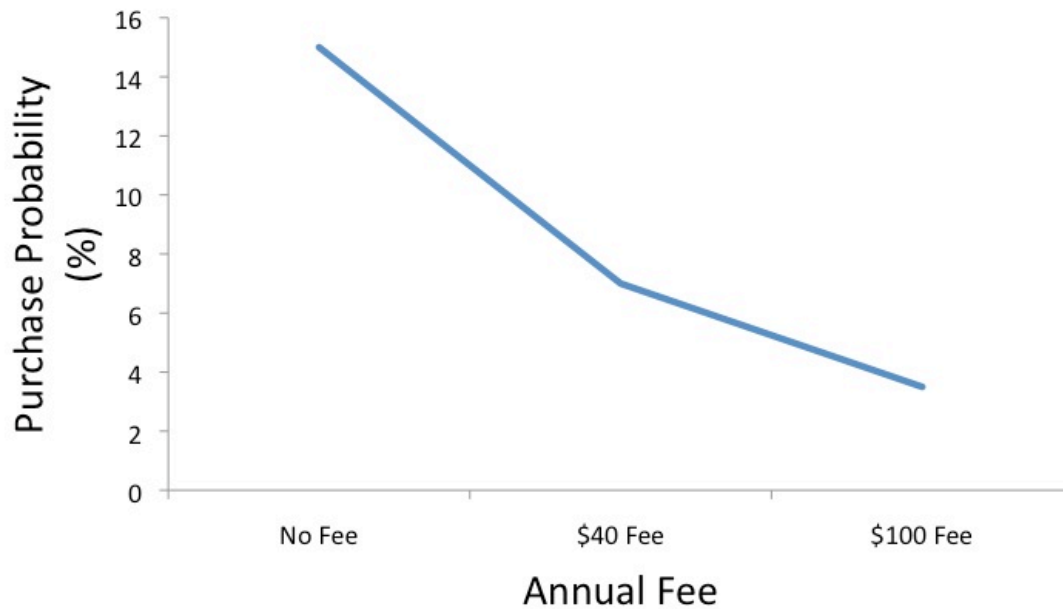
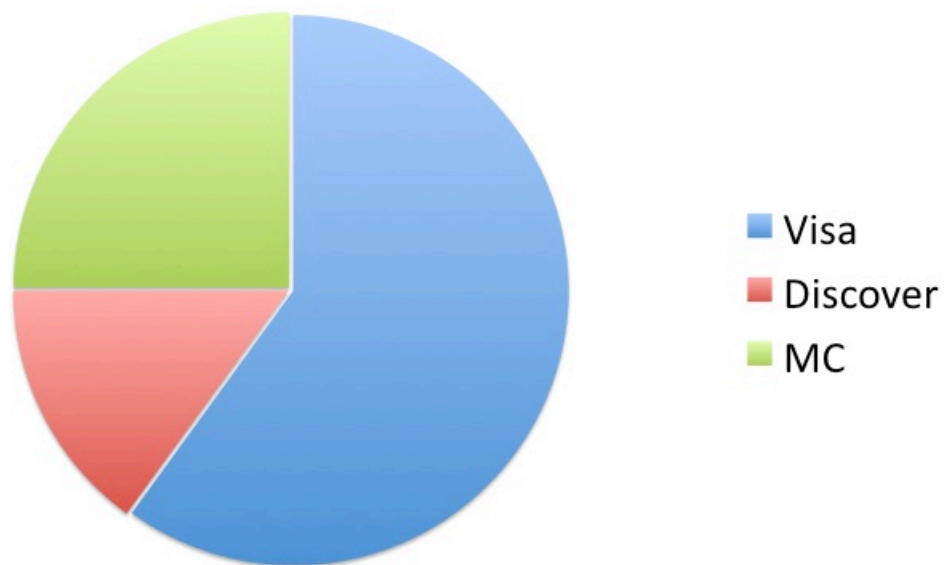


Figure 3. A market simulation based on customer data predicts share of preference for different products.



Finally, estimated share can be used with price and total market size to forecast sales. The judged sales forecast can then be used with development and manufacturing cost estimates to generate an ROI analysis.

Applying The Method

Applying this method is easier than you think. The first step is to understand the set of features that should be in the model. The best way to do this is to start with the usual set of customer and sales discussions. This leads to a qualitative understanding of the market and what features can potentially go into the model. However, not everything needs to go into the model. You can ignore features that every product must have. Focus instead on features that have a high development or manufacturing cost and those that require an either/or trade-off in development. Collecting the data can be done with as few as 20 customers by focusing on key customers who drive demand or can be done with Internet surveys for products that have a very broad customer base. Typically, the whole process can be done in about eight to ten weeks.

Summary

Product development decisions are critical to company success. The Feature-Value Method provides an effective way to find out what customers really value and how much they are will to pay. In wide spread use in consumer research for thirty years, this approach has been used on nearly everything from credit cards to ulcer drugs. Page Mill Marketing has applied the method to product development in semiconductors and EDA including:

- Field Programmable Gate Arrays (FPGAs)
- Digital Signal Processing (DSP) design environment features
- Register Transfer Level (RTL) source level debugger features
- Brand impact on email response rates

Contact Page Mill Marketing to help you make sounder product decisions, improve you competitiveness, market share and ROI on new products.

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