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PRICE SENSITIVITY MODELING

Price is a potent marketing tool which contributes to a product's positioning. Thus, when choosing the price to charge for a product (or service), a marketer must consider not only how much customers are willing to pay for the product, but the impact the selected price will have upon customer perceptions of the product.

Customers generally have in their minds an "expected" price for a category of products. Although this expectation varies across individuals, market consensus indicates an acceptable range. A particular product can be successfully priced anywhere within this range of expected prices, but where within this range the product's price falls can influence customers' perceptions of the product. When customers feel that the price is low, but not so low as to indicate poor quality, they feel they are getting a bargain. When they feel that the price is high, but not so high as to make them find a substitute, they feel they are getting a high quality product. Consequently, bargain and premium pricing are common positioning strategies.

Price Sensitivity Modeling is a survey research technique designed to determine the expected range of prices for a *category*, and establish the bargain/premium associations of particular price points. This approach has a number of benefits when seeking customer-based pricing guidance:

- It requires little data collection time: four simple open-ended questions.
- It is versatile in its application, being applicable to products or services, both new and existing (though the pricing for new products should be tested only among concept acceptors).
- It requires a relatively small number of respondents because it does not require separate cells for several prices.
- It can identify respondents who are more or less price sensitive.

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Price Sensitivity White Paper

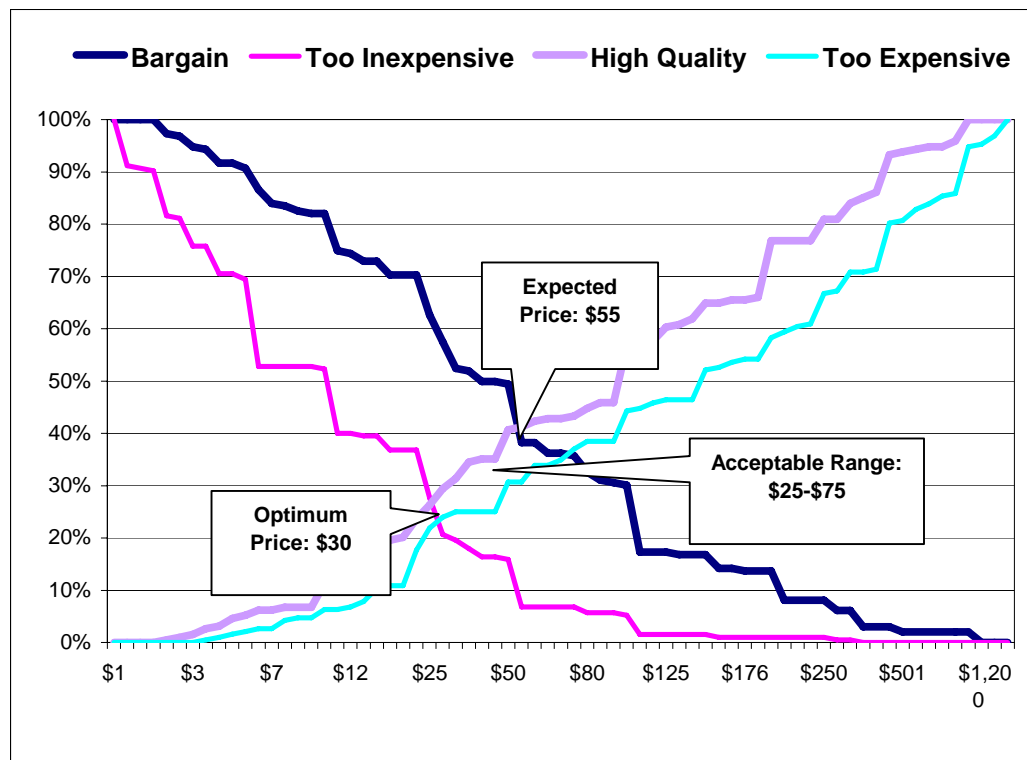
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Although the wording may change somewhat to meet specific needs, the time honored method of testing Price Sensitivity involves four basic questions:

1. What price is low enough to make the product a bargain?
2. What price is so cheap that you would not buy the product because you would doubt its quality?
3. What price is somewhat expensive, but worth paying because the product must be of especially high quality?
4. What price is so expensive that the product could not be worth buying?

The answers to this series of questions are cumulated for all respondents and displayed in a chart which summarizes market perceptions of price (see Figure 1). These four questions are used to define the acceptable range of prices, expected and desired price points, and the perceptions associated with prices within the range.

Figure 1: Price Sensitivity





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This chart is particularly useful for understanding the quality associations of particular price points. For example, 40% think that a price of \$11 would be too cheap, while 6% say it would be too expensive.

Where the "Bargain" and "Premium" lines intersect, an equal number of people are drawn to the product for each of these perceptions. This price is typically referred to as the "indifference" price, or the amount that the market *expects* to pay for the product. Raising or lowering the price from this point would result in a preponderance of quality or bargain perceptions.

When the "Too Cheap" and "Too Expensive" lines intersect, an equal number are deterred by these negative perceptions. This "optimum" price may be thought of as the amount that the market thinks they *should* pay. Consequently, the optimum price is almost always lower than the indifference price.

The acceptable pricing range is the area between the lowest price where the market is beginning to doubt the quality of the product (where "Too Cheap" intersects "No Bargain"), and the highest price where the market begins to consider the product too expensive (where "Too Expensive" intersects "Not Premium"). Although a marketer *could* price a product outside this range, this would represent a niche strategy since it alienates a substantial portion of the market who would consider the product "too cheap" or "too expensive".

Assessing Market Potential thru Extended Price Sensitivity Modeling

For an existing product where current users can be surveyed the previous analysis provides adequate guidance to identify the appropriate range of prices. However, in a new category, some respondents will be unlikely to purchase, even if they consider the product to be reasonably priced. In order to assess the market potential of a truly new product, and allow the price perceptions of the likely purchasers to have a greater impact on the pricing decision, purchase likelihood should be measured at two respondent-specific price points:

- Premium price (i.e., somewhat expensive, but high quality)
- Bargain price

With this additional information, purchase probability curves can be constructed for each potential buyer.

To construct this curve, the purchase intent ratings are converted into purchase probabilities, which adjust for overstatement. The conversion can



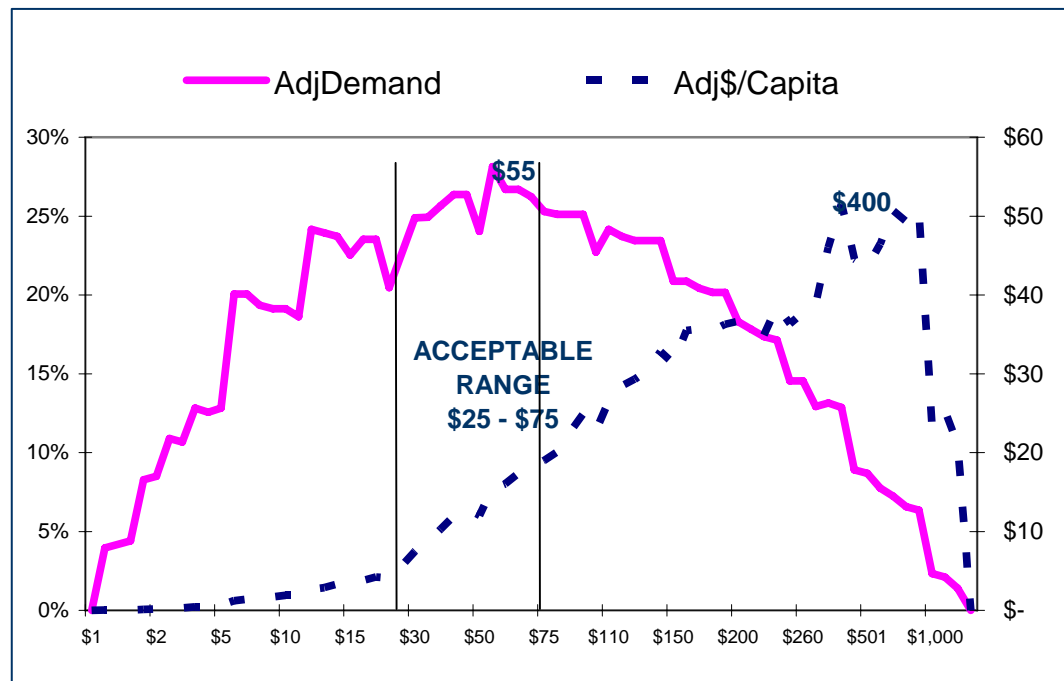
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vary by product category, but a possible adjustment is as follows: "Definitely will buy" response is translated into a purchase probability of 80%, while a "probably will buy" response is treated as 40%, and a "might or might not buy" is 20%, while any lower rating is assigned a purchase probability of zero. The "too cheap" and "too expensive" price points are each assigned zero purchase probabilities. We then use linear interpolation ("connect-the-dots") to predict purchase likelihood for that potential buyer at any price within the range studied.

These individual purchase predictions are aggregated across respondents to generate market potential estimates throughout the relevant range, typically the range of feasible or anticipated pricing (see Figure 2). The first curve represents product penetration and the second curve represents revenue (penetration times price). Typically the price that maximizes revenue is higher than the price that maximizes penetration. These figures are considered market potential estimates rather than demand forecasts because issues such as awareness, distribution, and diffusion are not figured into the analysis.

Figure 2: Market Potential Estimates





This information allows the marketer to:

- Estimate levels of market potential throughout the range of feasible prices,
- Predict revenue potential (market potential times price) over the same range,
- Select the optimal price on the basis of penetration or revenue, and
- Calculate price-elasticity.

Since the purchase probability estimates are calculated at the individual level, likely buyers at any price can be identified and profiled for targeting when sample sizes allow.

When To Use This Technique Rather than Other Pricing and Forecasting Techniques

Ultimately, the choice of technique depends upon the stage of development (both of the concept and its marketing plan) and the business risk associated with the decision. This approach to market potential and pricing measurement is most appropriate early in the development process when more costly research approaches are not warranted or feasible. The extended Price Sensitivity Measurement approach is preferred when:

Volumetric Demand Forecast Is Not Primary Objective

- If the likely market price and marketing plan are well-established, more traditional forecasting techniques/products have a validated track-record of providing precise estimates of demand. However, these approaches may not provide measures of price elasticity or produce an alternative recommended price point if the concept performs poorly.

Competitive Context Is Not Firmly Established

- If the product concept fits firmly within an established product category, choice of the new offering over other available alternatives is a better indication of market potential than simple purchase interest. A Choice Model incorporating price can provide estimates of market potential and price elasticity within a realistic competitive context. However, a reasonably narrow range of prices should be considered for Choice Modeling, and psychological price points or thresholds are difficult to identify.

A Relatively Quick and Inexpensive Estimate Is Required

- If the concept can be described in a telephone interview, the proposed technique can quickly and inexpensively obtain all of the market potential and pricing information described. In contrast, Forecasting methods and Choice Models typically require lengthy in-person interviews or telephone-mail surveys.



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Why undertake Price Sensitivity Modeling?

Use of this basic price modeling tool, when adapted properly to your needs, will take the guess work out of your pricing strategy and get you closer to a go / no-go product or service development decision faster.

Taking this customer-centric approach gives you a common-sense and cost-effective way of meeting market demands...a bottom line approach that insures you are communicating with relevance to your customers and prospects.

ADR Associates, Inc

...Helping Connect With Customers

ADR Associates is a corporation founded in 1994 specializing in strategic positioning, market research and communication counsel. Based at Red Hawk Ranch, a unique executive off-site location, ADR brings the customer voice into management's focus. Helping clients understand customer perceptions is often the foundation of ADR's involvement and becomes a driving force for creating and fine-tuning successful business strategies.

Red Hawk Ranch is headquartered in California's Temecula Valley Wine Region. Visit us at www.redhawkranch.tv.