

## What Should We Charge? Setting Price

Vince Farace, Satisfaction Management Systems (SMS) ([www.satmansys.com](http://www.satmansys.com))

### **DEFINITION**

Price is a benchmark against which a potential buyer assesses their “willingness-to-pay” for a product or service. Sellers offer prices; buyers have a willingness-to-pay. The challenge is to bring price and willingness-to-pay together in such a way that both parties benefit. From a seller’s perspective, if the price is too high then potential customers aren’t willing to purchase, compromising revenue. Set the price too low and buyers benefit while sellers leave money on the table. This article presents some of the issues to consider in developing a price – taking willingness-to pay-into account. It describes the major tools for establishing price, with emphasis on price measurement involving direct customer feedback.

### **DESCRIPTION**

Price is typically determined in one of three ways:

1. Cost-plus or **mark-up pricing**, reflecting all costs involved in creating and moving the product to the end customer, plus mark-up, OR
2. **Market-based pricing**, using data from a variety of sources outside the organization to determine price prior to the product’s launch, OR
3. A combination of the above.

The distribution of these three choices is heavily weighted toward markup pricing. One study suggests that 85%-90% of companies do not take market-price into consideration.<sup>1</sup> However, as noted above, if willingness-to-pay and price are not well-matched, the organization offering the product or service suffers.

There are two ways that market-based pricing can benefit an organization:

1. It can reinforce the likely effectiveness of cost-plus-markup pricing, giving some comfort to the decision to launch the product, OR
2. It can provide some cautionary evidence about the product’s financial success, perhaps avoiding a less-than-optimal outcome.

### **Market Pricing**

Before any measurement to establish a market price, there are a number of important perspectives topics to take into account.

**Understand how narrowly or broadly price is defined.** For many consumer items, price is mostly the dollars and cents required to take ownership of the product or service. However, in certain product arenas, particularly large consumer items such as vehicles or homes, and in the B2B world, other factors may figure heavily into the buyer’s perception of price:

- Financing (lease or loan costs that are part of the price)
- Day-to-day operating expenses
- Warranty extensions

---

<sup>1</sup> Monroe, K.B., and Cox, J.L. Pricing Practices that Endanger Profits. *Marketing Management*, 2001, pp 42-46.

## Pricing

- Maintenance/service/parts
- Lifecycle costs
- Etc.

**Identify deciders and influencers in the buying decision.** Many consumer items are purchased by individuals who make decisions without input from anyone else. However, buying decisions for large consumer items and for B2B purchasing often involved other factors. The buying decision can have multiple players. There may not be “a” buyer; there could be multiple players in the final decision. The players have different levels of authority and may operate from different agendas. Disagreements are not uncommon. Influencers can play a role in the purchase decision. The final buying decision is often a blend of perceptions and preferences of one or more deciders and one or more influencers.

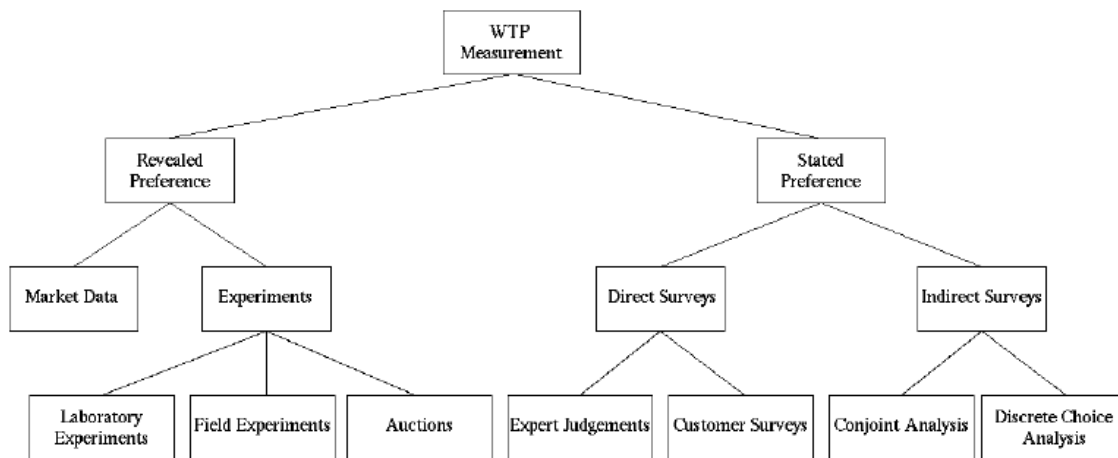
**Evaluate the product’s uniqueness.** Is the product or service substantially new, is it an important variation on an existing product or is it a commodity? The closer a product comes to a commodity, the more information is available to buyers on typical product prices and the more difficult it may be for a new product to command much of a price premium.

**Study the competition.** Are there competitive products? If there are, what are their prices? How does the new price compare? What if competitive product prices change?

### Obtaining Market Data

**Figure 1**<sup>2</sup> illustrates the primary methods for obtaining willingness-to-pay information. The good news is that there are many ways to gather this information. The other news is that while some methods are better than others, none are perfect.

**Figure 1: Methods of Collecting Market Pricing Data**



Is the information you need available from actual buyer behavior, or should you ask potential buyers how they might react behave if faced with the decision to buy or not? The distinction is between **revealed** (actual) buyer behavior and **stated** buyer intentions. Revealed preference data is superior to stated preference data (it’s what actually happened), but is often not available. In addition, some of the methods for obtaining actual buyer behavior are simulations rather than

<sup>2</sup> Breidert, C., Hahsler, M. and Reutterer, R. A Review of Methods for Measuring Willingness-to-Pay. *Innovative Marketing*, 2006, 4, pp. 8-32

unfettered real-world buying behavior. That leads most willingness-to-pay studies down the path of stated buyer intentions.

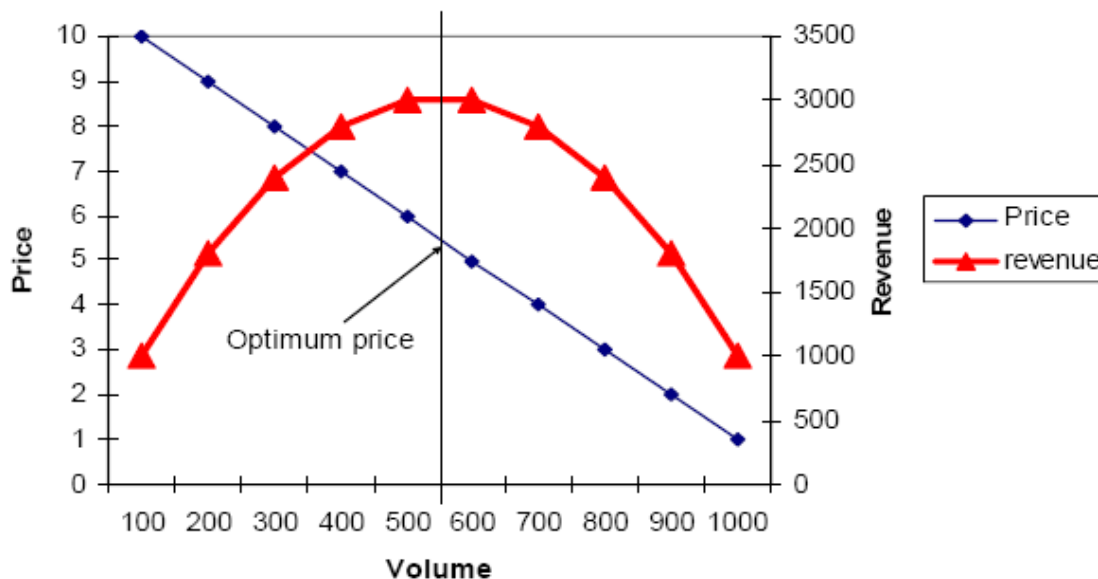
Using surveys to gather behavioral intentions and from that predicting actual behavior is not without its challenges. Respondents are quick to spot pricing questions and as soon as they do, a complex set of self-interest can kick in. A lowball price might be in the buyer's best interest. A high price might curry favor. However respondents describe their reaction to a price, there are no real consequences involved. A great deal of work has gone into minimizing these factors in survey approaches to price estimation, and constant vigilance is required.

### Price Measurement Approaches

#### Gabor-Granger

A pioneering method for estimating price<sup>3</sup>, Gabor-Granger is a simple technique to implement and analyze. Given a qualified buyer (decider if not key influencer), the product is described and the person is asked if they would buy it at that price. Then a new price is presented, and willingness to purchase is asked again. Price presentation is randomized. The process continues across respondents and across price points. The data are then plotted into a **price-volume-revenue** curve. The "best" price for the product is the one that maximizes revenue. This method can be used with new products or with product variations.

Figure 2: Gabor-Granger Price-Volume-Revenue Curve



<sup>3</sup> "On the price consciousness of consumers," with A. Gabor, *Applied Statistics*, 10, 1961, 170-188.

## *Pricing*

---

### **Van Westendorp Price Sensitivity Meter (PSM)**

The Price Sensitivity Meter<sup>4</sup> (PSM) was developed to improve and extend the Granger Gabor method. It establishes price by asking questions that calibrate different price perspectives. Where Gabor Granger asks about price directly, the PSM uses four somewhat indirect questions to calibrate price from different perspectives.

1. At what price would you consider the [PRODUCT] **so high** so that you would not purchase it?
2. At what price would you consider the [PRODUCT] **on the high side** but you would still purchase it?
3. At what price would you consider the [PRODUCT] a **bargain**, so you would purchase it?
4. At what price would you consider the [PRODUCT] **so low you would question its quality** and would not purchase it?

Given the responses to these four questions, PSM analysis produces five price benchmarks:

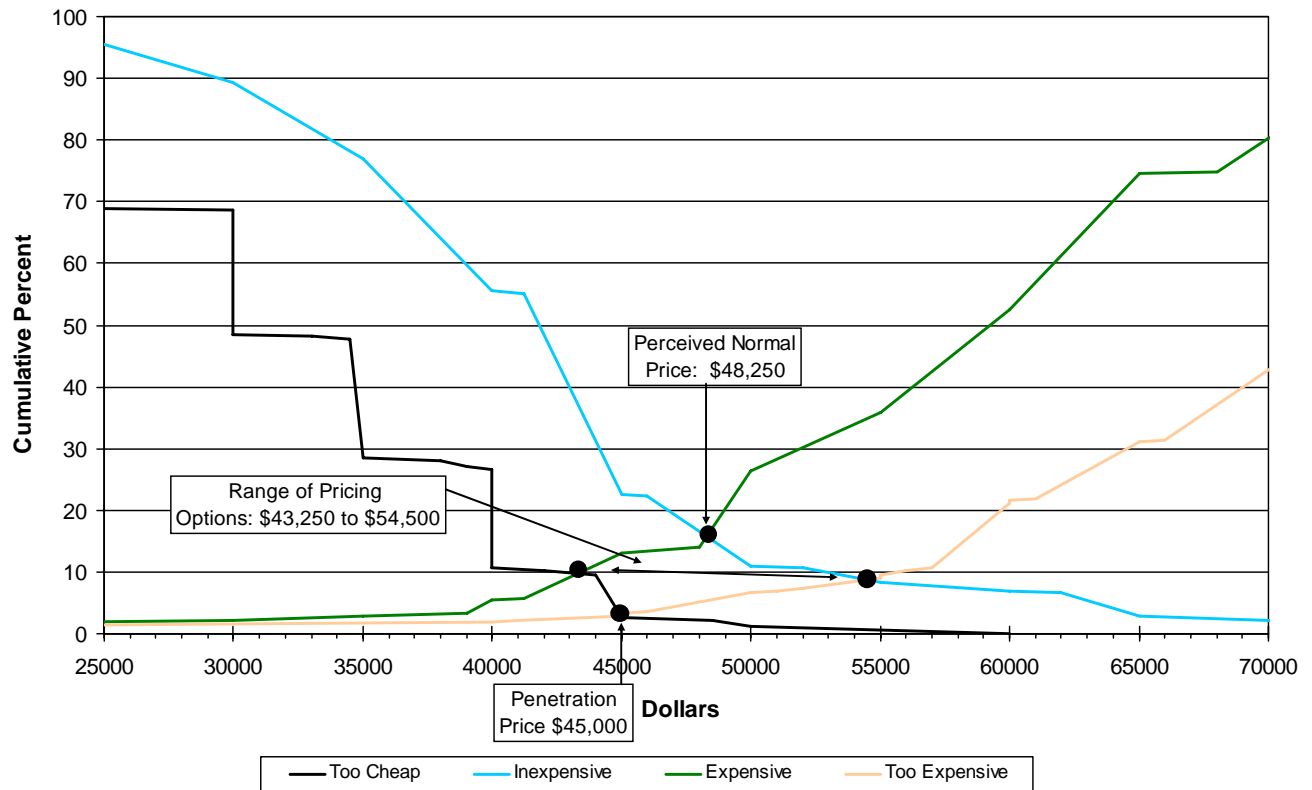
1. The **PERCEIVED NORMAL PRICE** – where equal numbers of people consider the offering inexpensive vs. expensive.
2. The **PENETRATION PRICE** – the price which maximizes the number of people who would consider the offering – that is, the price at which the fewest people would consider the offering either too expensive or too cheap.
3. The **HIGHEST REASONABLE PRICE** – the price at which equal numbers of people consider the offering too expensive vs. "not expensive". At any higher price, decreasing volume overcomes increasing revenue.
4. The **LOWEST REASONABLE PRICE** – the price at which equal numbers of people consider the offering "too cheap" and "not cheap". At any lower price, decreasing revenue overcomes potential volume increases.
5. The difference between the **LOWEST REASONABLE PRICE** and the **HIGHEST REASONABLE PRICE** is considered the **RANGE OF PRICING OPTIONS**.

---

<sup>4</sup> Van Westendorp P.H. NSS-Price Sensitivity Meter: A New Approach to Study Consumer Perceptions of Prices. Venice ESOMAR Congress, Amsterdam. European Market Research Society, 1976. pp. 139-167.

## Pricing

An example of a PSM display is shown below:



One interesting feature of PSM is that it starts a pricing exercise with a blank slate. No price is suggested to the respondent as a starting point. All other pricing techniques present a product to the respondent and ask for their reaction to a proposed price.

### Tradeoff (Conjoint) Analysis<sup>5</sup>

In the previous two pricing techniques, the product is presented as an entire entity with a price attached. Any conclusions about price apply to the entire product. Trade-off analysis provides a way to **decompose** the product into key features and then identify the portion of the total price that each feature contributes. Features that don't contribute strongly to the price can be minimized or dropped and features that are key to the purchase can receive extra attention.

There are several types of conjoint analysis: Adaptive Conjoint Analysis, Brand-Price Tradeoff, Discrete Choice, Full Profile Choice Modeling, Multi-Variate Testing, Hierarchical Choice, Trade-off Matrices, Preference Based Conjoint and Pairwise Comparisons. The general approach for each technique is to present a mix of feature levels and price points and then use the analysis to determine the optimum mixes of features and price.

### Monadic

Monadic testing offers an important advantage over other methods for establishing a price. It's the only technique where the respondent sees just one price and has to make their decisions about

<sup>5</sup> For more explanation of conjoint analysis and its uses, see:

[http://www.pdma.org/wiki/index.php/Pairing\\_Kano\\_and\\_Conjoint\\_to\\_Streamline\\_New\\_Product\\_Development](http://www.pdma.org/wiki/index.php/Pairing_Kano_and_Conjoint_to_Streamline_New_Product_Development)

## *Pricing*

---

the product based on that one price. This characteristic makes monadic testing the preferred method in many instances.

Monadic testing is essentially field experimental design which begins by dividing the total respondent sample into a series of cells. Respondents in each cell learn about the product and react to the price attached to it. By varying the price from cell to cell, it is possible to determine the optimal price for the product.

Monadic testing works well when it is possible to have individual price cells with a substantial number of respondents – say, 100, 200 or 400. In some B2B settings, where there are a small number of potential buyers it may not be possible to implement monadic testing.

### **Beyond Price: Purchase Intent**

Questions about pricing do not necessarily reflect **purchase intent**, especially in a context where there is no competitive price to consider. However, purchase-intent measures can be added to these techniques and move a step closer to predicting the likely effect of price on purchase behavior. Examples of those questions are:

1. On a scale of 0 to 100 percent, how likely would you be to purchase or recommend the purchase of this product?
2. How many units of this product would you purchase or recommend?

These questions are used to generate receptivity curves at the respondent level. These curves are used to plot a chart representing the prices at which receptivity (share) and revenue should be optimized.

### **REFERENCES**

Monroe, K.B., and Cox, J.L. Pricing Practices that Endanger Profits. Marketing Management, 2001, pp 42-46.

Describes the potential value of adding market-based pricing to cost-plus pricing.

Breidert, C., Hahsler, M. and Reutterer, R. A Review of Methods for Measuring Willingness-to-Pay. Innovative Marketing, 2006, 4, pp. 8-32

An excellent summary of the key points in assessing “willingness to pay.”

"On the price consciousness of consumers," Granger, C. W. and A. Gabor, *Applied Statistics*, 10, 1961, 170-188.

"Price sensitivity of the consumer," Granger, C. W. and A. Gabor, *Journal of Advertising Research*, 4, 1964, 40-44. Reprinted in *Readings in Marketing Research*, edited by K. Cox, New York, 1967.

"The pricing of new products," Granger, C. W. and A. Gabor, *Scientific Business*, August 1965.

"The attitude of the consumer to prices," Granger, C. W. and A. Gabor, in *Pricing Strategy*, edited by Bernard Taylor and Gordon Wills, Staples, London, 1969.

"The influence of price differences on brand shares and switching," Granger, C. W. with A.P. Sowter and A. Gabor, *British Journal of Marketing*, Winter 1969, 223-230.

## *Pricing*

---

"Real and hypothetical shop situations in market research," Granger, C. W., A. Gabor and A.P. Sowter, *Journal of Marketing Research*, 7,1970, 355-359.

"The effect of price on choice: a theoretical and empirical investigation," Granger, C. W. with A.P. Sowter and A. Gabor, *Applied Economics*, 3, 1971, 167-182.

The initial series of articles on the Gabor Granger pricing method.

Van Westendorp P.H. NSS-Price Sensitivity Meter: A New Approach to Study Consumer Perceptions of Prices. Venice ESOMAR Congress, Amsterdam. European Market Research Society, 1976. pp. 139-167.

The original presentation of van Westendorp pricing.