

Techniques and Concepts for Pricing

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Below, I describe techniques and concepts that should be useful to those in pricing. For ambiguities or mistakes on the thumbnail sketches, send e-mail to Scott Armstrong.

Action steps: An integral part of any presentation. The idea is to conclude the presentation with a decisive plan of action. In other words, outline the steps that should be taken to implement the stated objective. To do, this it is important to keep in mind the "foot-in-the-door" technique whereby one puts forth small steps with a time deadline in the near future; these steps are easily applied by the client in the beginning and gradually build to the final objective.

Anchoring: The initial price that people see for a product has a strong impact on their perception of the value.

Anti-trust statutes: Laws intended to protect competition (or are they to protect competitors?) by preventing any one firm from dominating the market. Global competition (due to freer trade laws, better communication and better transportation have made these laws less important.)

Bundle costs, unbundle benefit: Part of the pricing strategy is to make the customer happy with the transaction. One way to do this is to reduce the painful aspects by collapsing the price into a single figure. At the same time, it helps to show that these are many benefits.

Commitment and consistency: If people become committed to a course of action, then they act in a consistent manner.

Conjoint analysis: A two-step procedure where you first prepare a set of alternative designs (using principles of experimental design that have cleverly been imbedded in this program); then you try to estimate the probability of purchase for various designs. The programs are quite popular in business and much of the developmental work was pioneered by Paul Green in the marketing department at Wharton. Design your own experiments and analyze them using regression (all this can be done with a good spreadsheet program). This would be a better learning exercise for this course than using one of the conjoint packages. For more, see Conjoint Analysis under [Research Techniques](#).

Contrast: People perceive prices in percentage terms as well as in actual terms. This leads to some seemingly irrational behavior on the part of buyers.

Demand and cost pricing: When you initially structure the pricing problem, define the feasible range. The lowest price is defined by your variable cost (assuming that you are not the government, in which case the lowest price is determined politically and is based on fairness as perceived by the interest groups).

Endowment effect: The perceived value of an item is influenced by possession of that item.

Elasticity (see Price elasticity)

Experience curves: (similar to learning curves). The decline in average cost associated with accumulated production experience. Underlying this concept is the notion that as one gains knowledge and experience, they learn how to do things better, faster and cheaper. Has been applied to strategy by encouraging the leading producer to maintain the advantage by pricing down the demand curve so the other competitors cannot catch up.

Experimentation: To learn about the optimal price to charge for a frequently purchased product, it is necessary to depart from what one believes to be the optimal in order to gain information.

Expert systems: Explicit rules derives from experts and from previous studies. Often developed as a set of conditional statements (If X then Y). See [expert systems](#).

Importance of being unimportant: People often perceive prices in relative terms. So it is easier to price a product that represents only small part of a transaction.

Legal liability: The major change in this area has been relatively recent (since the 1960s and confined mostly to the U.S. This involves the replacement of contract law by tort law with respect to products liability.

Loss leader: Offer a low price on a product where people have a well-known reference price so that they will be enticed to make a trip to the store. One might lose money on the item but gain on the total set of purchases (e.g., the Thanksgiving turkey sale at the supermarket.)

Low-ball: Offer a low price to gain *psychological* commitment, then increase the price

Marginal analysis: This is the idea of adjusting the marketing mix such that a dollar spent on one part of the mix has the same return as one spent elsewhere.

Marketing concept: First identify the customer categories (not always obvious). Then for each customer category, start at the highest conceptual level. (What is it that they want?)

Negotiating on interests: Rather than positional bargaining, try to bargain about each others interests and explore options for meeting those interests.

NPV: Net present value. New products often require early expenditures in hopes of later returns. Thus, you should determine a cost-of-capital (given the level of risk) and apply this to the profit stream (or, more accurately, to the cash flow stream). In addition to an expected NPV, you should also estimate the confidence intervals to reflect the risk involved in the venture.

Parallel processing: Divide your group into two or more subunits and have each unit independently solve the same problem. Then compare the results to select the best solution (or to modify it). Useful for creativity and it also helps to guard against mistakes in analyses.

Price elasticity: Defined as the ratio of the percentage change in demand over the percentage change in price. This is useful in marketing to determine whether a product price is too high or too low.

Prisoner's dilemma: Occurs when cooperating with another party can lead to good results, but where one can also take advantage of that party. The average payoff is higher when the two parties cooperate.

Product life cycle: The four stages in a product's life; introduction, growth, maturity, and decline. The introductory phase is generally a period of slow growth. Profits are often nonexistent in this period due to start-up costs. The growth stage is one of rapid market acceptance and substantial profit improvement. In the maturity phase, growth in sales slows down due to the high level of market penetration. Profits stabilize or decline as competition increases. Then sales decline. Different pricing policies may be appropriate for different stages.

Reciprocation: By *doing* something (not promising something) for another party (e.g., a potential customer), one can develop a feeling of obligation. Thus can make a price concession.

Regression analysis: A widely misused method of analyzing data. Fits the line by minimizing the least square errors (but there are also programs to minimize mean absolute error). For two variables, people can often do as well with a ruler. So the big gain come from a systematic analysis (people cannot solve such problems in their heads). Especially useful when analyzing more than two variable where the independent variable are correlated. Useful for estimating price elasticities with non-experimental data.

Rejection and retreat: If an initial offer is rejected, it is often useful to make a follow-up offer.

Representativeness: In pricing a product, it is often useful to emphasize features that match those of a much more expensive product (and avoid those representative of a less expensive product.)

Resale price maintenance: Where the manufacturer tries to get retailers to follow a stated price. Difficult to enforce and typically a poor idea to begin with.

Role playing: With this technique people are assigned to play the roles of people in given situations, such as a price negotiation. They try to "pre-enact" the situation to see what happens when various strategies are employed. See [role playing](#).

Scarcity: The perceived value of a product to an individual is often influenced by scarcity.

Selling down (or trading up): Various considerations affect buyers' perceptions when presented initially with either an expensive version of a product (or an inexpensive one).

Social proof: The perceived value of an item is affected by what others think (e.g., van Goth's paintings when he was alive versus now).

Single low price: Rather than having prices vary over time for "sales", the seller offers one low price. This price might be at or slightly below the price charged previously.

Stakeholder theory: A process whereby the consequences of a particular action are evaluated for each of those groups who have vested interests.

Sunk costs: Costs that have been incurred and cannot be recouped. Ignore those costs that do not vary with the decision. Psychologically, most of us cannot do this. So it is also important to be aware that this will influence the perception of many clients when you present them with a recommended price; they are likely to be concerned about recovering costs.

Survey research: Useful for assessing customer needs and also to assess expert opinion about how customers will react to an ad. This is one of the most highly researched areas in management, partly because it is so easy to run experiments. The research has led to effective procedures (the best summary of these is in Dillman, Don, *Mail and Internet Surveys*). It is easy to look at a survey design and tell whether the creators have used the research. For more, see [surveys](#).

Systems approach: Look first at objectives then at alternative strategies. In each case, start at the highest conceptual level, then make the objectives and strategies more operational. It sounds easy, but it requires much time and discipline. Enables people to go outside of current solutions and to produce rational yet often very surprising solutions. I sometimes get calls from former students telling me how they used this procedure to come up with unusual and effective solutions that differed greatly from the existing thinking in their company. For details, see [Systems Approach](#).

Time line: The process of allocating one's time in accordance with the tasks they must accomplish. This method allows one to break down their jobs in meaningful, do-able parts. One of the essential components of a time budget is slack time. With the inclusion of slack time, one can deal with the inevitable setbacks without upsetting their schedules. Using a PERT (Program Evaluation and Review Technique) chart is one way of creating a time budget. Also related is CPM, the Critical Path Method. Do the time line, show relationships, and estimate times. Then figure what path is determining the time to completion. You might then consider changes to this critical path to shorten the time or to introduce slack. (See [Planning Process Checklist](#).)