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Pricing Outside the Box

by Kyle B. Murray

Mercedes-Benz had trouble attracting buyers to its new C-class cars because the price was only $37,950. The problem was consumers planning to spend less than $40,000 on a new vehicle did not consider buying a Mercedes. According to focus group research, people assume a Mercedes will cost at least $55,000. This problem is not unique to Mercedes.

Businesses frequently find it difficult to predict how their customers will react to the prices they set. In part, this is the result of relying on economic models that contend that when prices fall demand rises and when prices rise demand falls. Such models are based on the assumption that buyers have an accurate knowledge of market prices.

Research has demonstrated time and again that consumers do not know the price of most products. One particularly surprising study (at least to economists) asked grocery shoppers the price of the products that they had just put in their carts. The study found that more than half of the shoppers asked could not correctly state the price of the item they had just placed in their cart, and more than half of the shoppers who purchased an item on sale were unaware the price was reduced. In general, research indicates consumers have only a vague sense of the price for any particular product in the marketplace.

Test yourself. What is the price of a DVD player? This is a difficult question because there is a range of prices that vary across a rather broad assortment of players with different features and performance specifications. What then is the price of an entry level DVD player? A top-of the line DVD player? The average DVD player? Chances are you don't know.

Even if you spent hours researching DVD players you still may not know the exact prices. There are too many companies making too many models of players sold by too many retailers for you to be able to answer these questions definitively. What you do know is that a DVD player costs more than a cup of coffee and less than a new car.

In addition, you could probably guess that a Sony DVD player costs more than one made by Electrohome. However, it is very unlikely you know the price of the Sony 5-disc DVD player that is on sale at the thebrick.com as I write this article (it is $269.96). It is also unlikely you know which is more expensive, the Sony 5-disc DVD player or a RCA 5-disc DVD player (it is the RCA, which is selling for $289.96).

Pricing research during the past 30-plus years tells us that only one-quarter to two-thirds of consumers can accurately recall the price of the products they buy, depending on the product category. Many of these studies have looked at the prices for common items such as groceries. Accurate price recall is considerably lower when the products are less familiar or less frequently purchased.

You would expect if more often than not people do not know the prices of the products and services they are purchasing, they would have difficulty making budget decisions. But while they do not know the exact value of the products they buy, most consumers have a good understanding of the relative price of products.

For example, they know Kellogg's Cornflakes cost more than generic cornflakes. They expect that the law office on the 50th floor of a downtown office tower is more expensive than the lawyer in the strip mall. They know that a Mercedes costs more than a Ford. Consumers also know a box of Kellogg's cornflakes costs less than an hour with a downtown lawyer and that both cost less than a new Ford. Buyers may not know the exact price of anything, but they have a good knowledge of the relative value of products.

Using this information, consumers can produce price estimates for almost any product. They do so the same way they generate estimates for many other types of numerical values. Our research identified this process as one of ordinal conversion based on categorical inheritance. Simply put, once consumers have an idea of what the distribution of prices looks like (i.e., the range of prices and the average price), they order products within the range (ordinal conversion) and assign values to them based on the categories they belong to (categorical inheritance).

For example, a consumer might believe a basic cup of coffee ranges from 50¢ to $3, with the average cup costing $1.50. He knows a Starbucks coffee is more expensive than the average and near the top of the range, so he estimates the Starbucks coffee costs $3.

As a result, before that customer approaches the counter to order a Starbucks coffee he has an expectation that it should cost about $3. If it costs $5, he is going to think it is expensive. When he finds out it costs $1.95, he is pleasantly surprised -- even though it costs 55% more than a cup of coffee from McDonald's.

If companies are to understand what customers think about prices they need to understand how consumers generate their reference prices. Advertising and years of experience give consumers an idea of what the distribution of prices looks like for most products.

How customers rank products within that range depends on the category they assign them to. For example, a Mercedes is a luxury automobile while a Ford is not. Given this knowledge, a Mercedes should cost more than a Ford. Similarly, Starbucks sells premium specialty coffees, McDonald's does not. Therefore, Starbucks coffee should cost more. Problems arise when, for example, Mercedes wants to sell a sedan for less than $40,000. Customers think about prices relative to other prices within the relevant distribution. Having formed a reference price the buyer reacts positively (demand increases) when the market price is below the reference price and negatively (demand decreases) when the market price is above the reference price.