Fine Tuning a Retail Price

Dr. Robert Schindler, Associate Professor of Marketing, Rutgers University

Dr. Schindler reports his findings in consumer behavior and tendencies towards a price's rightmost digits. Does it influence consumer's purchasing decision?

Whatever factors a retailer takes into account in arriving at a product's price, there is always the possibility of making that price a few cents higher or a few cents lower. This "fine-tuning" of the price involves choosing the price's rightmost digits, which are often referred to as the price's "ending." For example, the computerized pricing system at CVS Stores begins by applying the necessary markup to an item's cost. After that is completed, the program takes the pennies digit of the resulting price and raises it to the nearest 5 or 9. On the other hand, Wal-Mart takes a different approach to this fine tuning. The prices determined by costs are then adjusted so as to avoid having prices end in the digits 5 or 9.

This decision concerning the price's ending is one that is made, at least implicitly, every time a price is set. Managers who merely allow other factors to make the decision for them. Some managers report that price endings in their organization are based on long-held traditions that often no one in the organization is any longer able to explain. However, the research results indicate that the price-ending decision is one worthy of careful deliberation. For example, one controlled study in the sale catalog of a women's clothing retailer found that a one-cent price drop that led prices such as $22.00 to become $21.99 increased sales by 8 percent. Although effects of this size may not always occur, the evidence that they can occur tells us that the price-ending decision should not be made haphazardly or left to unevaluated tradition.

Most of the published research on price endings has been carried out in the past twenty years. There have been a few field experiments, in which a company has allowed outside researchers to design an actual pricing test. However, most of the studies have used publicly available sets of supermarket scanner data, surveys of advertised prices or rates, or paper-and-pencil surveys of managers or consumers.

The first key finding of this research is that consumers tend to ignore the rightmost digits when assessing the level of a price. For example, consumers will judge that the size of the difference between a pair of prices such as $19.99 and $24.99 is greater than the size of the difference between $20.00 and $25.00, even though both pairs differ by exactly $5.00. It is as if consumers ignore the rightmost digits and focus only on the leftmost digit. When one leftmost digit is 1 and the other is 2, the difference between the two prices seems greater than when the leftmost digit of both prices equals 2.

Part of the reason this occurs is because consumers sometimes simply skip the processing of rightmost digits. Consumers are particularly likely to do this when they are in a hurry or are not highly involved in the decision. However, it is interesting that the tendency to ignore rightmost digits persists even when the rightmost digits are actually seen. In one study, consumers were asked to first take a pencil and write out each of the number pairs such as $19.99 and $24.99, proving that they saw every digit. These consumers still judged the difference between 19.99 and $24.99 to be greater than that between $20.00 and $25.00! It appears that the tendency to ignore rightmost digits is at least partially an emotional phenomenon, perhaps similar to the disconcerting feelings one has when a birthday changes one's age from 39 to 40 (or, even worse, from 59 to 60).

The second key finding of price-ending research is that a price's rightmost digits can carry a meaning to consumers. Although rightmost digits cannot do this if they are totally ignored, keep in mind that rightmost digits are ignored even when they are seen. When perceived, rightmost digits are not only emotionally ignored, they also can serve as signals to consumers. For example, in one study, 27 percent more consumers judged a women's dress advertisement to be "on sale" when the price in the ad was $49.99 than when it was $50.00. It appears that the 99 ending connotes to consumers prices that are discounts or otherwise particularly low.

It is important to note that, in addition to a low-price meaning, the 99 ending also appears to have connotations that are clearly negative. Consumers have indicated that, at least for retail ads that portray a relatively upscale image, 99 endings can raise questions about the "classiness" of the store as well as about the quality of the items sold there. Moreover, interviews with managers of fine dining restaurants have indicated that they tend to avoid 9 in the rightmost digits of menu prices because they believe that 9 endings suggest to customers a less than straightforward approach or give the appearance of "nickel and dimeing" customers.

Putting these findings together, the research results suggest the following guidelines for making price-ending decisions:
• When the price sensitivity of the market is high, it is likely to be advantageous to raise or lower prices so that they end in high numbers such as 9. This is particularly so if the use of high numbers among the rightmost digits helps minimize the price's leftmost digit.

• When the price sensitivity of the market is not especially high, the risks to one's image of using 9 endings are likely to outweigh the benefits. In such cases, the use of even dollar prices and round number endings would be more appropriate.

• Many upscale retailers appeal to pricesensitive segments of the market through periodic discounting. This would suggest the value of a combination strategy: break from a standard policy of round number endings to use 9 endings when communicating discounts and special offers.

Admittedly, these guidelines leave numerous price-ending questions unanswered. This is simply because the price-ending research does not yet have clear answers to these questions. A particular challenge would be to investigate the meanings that may be communicated by price endings that involve digits other than 9 or 0. For example, the use of price endings that are neither round numbers nor 9-ending numbers may communicate to consumers that no fine tuning was done at all - the prices were cut "right to the bone." Perhaps such an intuition was behind Sam Walton's policy of avoiding 5 and 9 endings and favoring prices such as $8.44 and $3.17.