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Discussion

To paraphrase a popular advertisement for recruiting Marines, this has been a conference with a few good papers. Each has been carefully conceived and presented with ample opportunity for discussion. The result has been to stir up many valuable ideas.

What has been the relevance of these papers to managers? Let us divide pricing research broadly into descriptive and prescriptive work. The marketing literature tends toward the prescriptive and the economics toward the descriptive, although it is easy to find crossovers in either place. As Jack Gould pointed out, the highest goal of descriptive work is to produce a single model that explains widely different behavior. Such a goal is desirable, but it has its limitations. Suppose we consider the pricing of sulphuric acid, an industrial product sold in bulk directly to a few big customers and, at another extreme, the pricing of toothpaste, a consumer product sold through thousands of retailers to millions of consumers. General models can give us a broad understanding that keeps us from looking silly when we talk to Dupont and Lever Brothers managers in the same seminar. Yet I do not think models at a high level of generality will tell us enough to look smart if we should actually visit either of those companies and talk about their pricing problems. It is not that the principles are wrong, it's the pesky details. I suggest that real pricing problems possess real complexity. They are full of surprises.

As an example from a luncheon conversation yesterday, consider the so-called gray market in cameras, now flourishing on the East Coast. Japanese camera makers sell all over the world. Their global pricing structure is carefully thought out and has different policies for different countries. Recently, however, for reasons having nothing to do with cameras, the dollar strengthened sharply against the deutschemark at a time when West Germany was economically stagnant. A big inventory of Japanese cameras built up in Germany. So

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what happened? An entrepreneur set up a paper company on the Isle of Guernsey, bought Japanese cameras in Germany, and shipped them to New York where they appeared on the market $50 cheaper than the U.S. dealer cost. The manufacturers suddenly found tremendous pressure from their U.S. dealers to cut price. What should the Japanese managers do? Prove the correctness of your answer.

So, I believe that many more things happen in the real world than we have models for. Can we hope to be relevant? This conference leaves me optimistic. We are gathering a kit of constructs, models, and measurements with which we can tailor many useful analyses to support pricing decisions. We need to approach real-world pricing cautiously and interactively. As Herb Blitzer has said, we need to ask the manager, "Why did you do what you did?" and "Why didn't you do thus and so?" so that we are sure that our models treat at least the phenomena that the manager perceives. In this conference, we have seen examples of studies that address complex phenomena with clarity and insight. Oren, Smith, and Wilson take on a class of product line pricing problems with a fine theoretical analysis. Goldberg, Green, and Wind face up to a subtle problem of pricing a bundle of hotel amenities with a sophisticated measurement methodology. These are encouraging pieces of work.

This brings me to the question of directions for future research in pricing. General descriptive theories are, of course, important. However, my own taste runs to a delight in small prescriptive models that make a few simple assumptions and derive from them analytic results that provide insight, direction, and perhaps form of solution. Some of the work referred to in Tom Nagle's and Vithala Rao's reviews is of this type.

A second direction is high-fidelity models with prescriptive goals. This is the road I believe Oren et al. and Goldberg et al. have taken in their quite different ways. I am looking for more complexity than is offered by either general theories or clever little models. I am thinking of models that try to cope with reality, making simplifications as necessary but with careful and explicit justification. The sought-for prescriptive results will usually be computational rather than analytic and will be based on data and measurements specific to the task. This is decision-focused research conducted with a care that recognizes the risks of real-world pricing.

A third research direction, independent of the previous two, is the study of competitive pricing behavior. Some colleagues and I have been using UPC panel data to try to build market share models for grocery products in which price is one of the marketing mix variables. We stand a pretty good chance of estimating price response. Managers have told me they would like to have this information. Although we may be able to give it to them, I hope they do not ask us how they should use it to set prices, because I am not sure what to say. The reason, of course, is that competitors are likely to change their price if you change yours, but you cannot count on it. In other words, I do not yet know how to build the required prescriptive model. Simple equilibrium models are not, I think, the answer. There seems to be a need for merging behavioral research about managers and organizations with economic and market response studies. Mixed in here too are a variety of strategic issues, for example, the possible desire to discourage entry with a low price or to generate cash with a high one.

In an effort to kick off the needed new research, I offer the grizzly bear theory of competition. It seems that two hikers were climbing in the high Sierras on a summer day. In the middle of the afternoon, as they came around a bend in the trail, they spotted a grizzly bear some distance ahead. It was ambling toward them. On seeing the hikers the bear picked up speed. One of the hikers proceeded to take off his pack, sit down, remove his hiking boots, and start putting on his running shoes. The other hiker looked at him and then looked at the bear and said, "What are you doing that for? You can't outrun that bear."

The first hiker didn't stop tying his shoes but answered, "I don't have to outrun the bear. I only have to outrun you."