action line

occasional news and notes from **action marketing research**

August 1999

Now We Are Six

Years old, that is. Time flies when you are having fun, and we still are. Thanks to all of you who supported us when we opened our doors back in August, 1993, and to those of you who have come along since.

Better Than Ever Conjoint

We are big fans of what is variously labeled discrete choice analysis or choice-based conjoint. It is a powerful method for finding out the market value (utility) of various product attributes by observing consumers making forced choices.

The latest advance is a method for making reliable estimates of individual utilities from a modest amount of individual data. Previously your options were stable utilities at the group level or flaky estimates for individual respondents.

Championed first by Greg Allenby of Ohio State, a procedure known as "Hierarchical Bayesian" (HB) estimation has been programmed successfully by our friends at Sawtooth Software. Independent research has validated its ability to predict later behavior and/or "hold out" choices. With HB, interaction effects are automatically reflected in the individual coefficients, so the model may actually be simpler. And HB allows more accurate simulations of choices where the alternatives are similar to each other (e.g. line extensions).

We have used the new method and are very satisfied. It really does make conjoint a better-than-ever approach to many marketing problems. Contact us for more details.

Just Say No

A "can do" attitude is often admired in a research company. Clients appreciate your willingness to tackle unusual problems and try new ideas. However, you should be suspicious of a research supplier that never says "no."

We feel obliged to use our best professional judgment about whether a given study, procedure, or statistical analysis should be done at all. We have advised clients that a proposed study is not worth doing. We are willing to say that, while we <u>could</u> do such-and-such, it <u>should</u> not be done. We have lost a few of these arguments and given in, but have felt badly about it.

The combination of readily available software and methodological or statistical inexperience often results in doing things to numbers that should not be done. The numbers themselves don't care. The problem could be something as simple as an inadequate sample size. It could be that the way a question was asked and scaled disqualifies it for certain statistical procedures.

There are professions whose members will do anything you ask if the price is right. We embrace a different standard for marketing research. A truly professional researcher will not hesitate to say "no, we won't do that"–even when the client would gladly pay for it. A line can be drawn between these professional researchers and what amount to research salespeople who are incented to sell anything a client will pay for.

We know which side of the line <u>we</u> want to be on.

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Internet Sites of Interest

Need ideas or information about forecasting? Lots of free, academically sound advice is available at Prof. Scott Armstrong's site at:

http://hops.wharton.upenn.edu/forecast

A new and very fast search engine is now operating at:

www.alltheweb.com

Natural language queries are fielded fairly well by:

www.askjeeves.com

Sawtooth Software (whom we like but in whom we have no stake) provides very useful technical papers at their site at:

www.sawtoothsoftware.com

Mediamark Research (MRI) offers some free summary data on magazine audiences at:

www.mediamark.com/pages/pp_S98B.htm

A decent amount of information about larger public companies may be found at:

www.hoovers.com

New Digital Toys

The direct benefits to our clients will be subtle, but we are enjoying some new technology. Our brand-new digital copier/printer reproduces reports, etc. very cleanly and quickly. No more spots. It also enables us to turn around miscellaneous printing faster than ever.

Coming soon is a DSL line so our Internet and e-mail access will always be on. Inside a large corporation you may take this for granted, but we are anxious to be rid of the need to dial-up our Internet provider every time. We will thus get your e-mail as soon as you send it.

> You can never have too much sample, too much significance, or too much data

A bumper sticker we would like to see

Sample Weighting

There are a number of reasons to (re-) weight a sample after data are collected. What this means is that instead of counting each case equally, some count more than 1.00 and some count less. Any good statistical software will allow you to weight cases differentially.

You would weight a sample when, by choice or chance, it is not representative of your target population. Let's say you are studying customer loyalty in each of three sales regions. One region has twice as many customers as each of the other two. In order to get a good read <u>within</u> each region, you might interview 200 customers in each one.

Your data would be correct within a region, but without additional weighting, statistics for the <u>total</u> would be unduly biased in favor of your smaller regions. As it is, customers in your larger region make up a third of the sample but account for half your customers. Those respondents would be assigned a weight of (.50/.33) or 1.50. The customers in a smaller region make up a quarter of all customers so would be given a weight of (.25/.33) or 0.75. If this is the only weighting you do, nothing in the data will change within regions. You will only see different (and more accurate) statistics for the total sample.

In this example–where we deliberately used disproportional sampling–weighting is a good and necessary tool. But there are drawbacks of which you should be aware. Any time that you weight data, <u>you are penalized in terms of statistical efficiency</u>. We had a total sample of 600 in our example, but after weighting the effective sample is smaller. That means the real standard errors are larger. The more extreme the weights, the more you are penalized. For instance, tests of significance run with heavily-weighted samples may give you misleading results.

Leslie Kish, in his classic Survey Sampling, discusses the issues as well as anyone.