

## Marketers give new life to method of testing multiple variables at once

BY JAMIE SORCHER

ANY BUSINESS can improve a process if it makes the right changes, but many times that's just the problem: figuring out what to change.

So an old research method, "design of experiments," is being applied in a new way to improve the sales and marketing process. Trademarked in 1996 as Multivariable Testing, the method lets marketers test many changes in a procedure at once. It traditionally has been used in military, agriculture and medical fields.

"It is the future of marketing," said Eric Almquist, a VP at Boston-based Mercer Management Consulting, which uses the research method in-house.

The first step is coming up with a list of specific problems or opportunities. From there, the factors that could affect the desired outcome are deduced and a test is developed.

Programs from start to finish typically take three to six months, depending on complexity. Cost varies from project to project, but generally starts at \$100,000.

DuPont, Wilmington, Del., has known the benefits of Multivariable Testing since the 1960s.

"It goes by different names, but this emerging form of testing is a shortcut to figuring out what works and what doesn't," said Steve Bailey, senior consultant to DuPont's quality management and technology group. "The whole concept is understanding what output you want to improve and the inputs that will affect it."

### Southwestern Bell's test

Efficiency expert Charles Holland, who owns the Multivariable Testing trademark, in 1982 founded QualPro, a Knoxville, Tenn.-based quality-control consulting company that applies Multivariable Testing for its clients. Bob Clyne, a district manager for Southwestern Bell, San Antonio, recently turned to QualPro for help.

Mr. Clyne was assigned to increase Southwestern Bell's b-to-b sales 40% to 60%. He needed to quickly determine what was working and what wasn't for his team, which sells telephone systems to industrial clients.

Typically, when business managers want to test changes to find what is effective and what isn't, they test one item at a time, but that isn't always the most efficient way to get answers.

For instance, Southwestern Bell wanted to test how 15 factors would affect sales in four product lines. Nicknamed the Aladdin project, the undertaking involved a number of steps.

Southwestern Bell already had determined its sales goal, so it was time for brainstorming. Seventy factors were identified that, if changed or combined in the right way, might help achieve the desired outcome.

Those factors ranged from call rate—how many face-to-face contacts a salesman was making each day—to flexible hours—working 8 a.m. to 5 p.m., 7:30 a.m. to 4:30 p.m., or 8:30 a.m. to 5:30 p.m. Ultimately, the 70 potential factors were narrowed to 15.

"When you test one variable against a control, you have two possibilities: to implement or not," said Kieron Dey, a QualPro account director. "By the time you test 15 variables that could influence an outcome, that's . . . 32,768 trials that have to be run. Testing 20 factors would be setting up 1 million tests. Impossible."

Southwestern Bell would have to run only 16, thanks to Mr. Dey.

### What they discovered

The experiment ran over four months with four sales teams. Each month, Messrs. Clyne and Dey outline the process to be used that particular month with each sales leader.

"We received immediate positive results," Mr. Clyne said.

He found certain factors such as product demonstrations worked with some lines but not with others.

And flexible hours in any scenario hurt tremendously. "This was one of the major things we learned in the process," he said. "This one factor killed sales."

With this information, Mr. Clyne made several changes to the sales process that delivered impressive results. His division not only achieved its quota, but increased sales 167%. ♦