



Rx for Pharmaceutical Marketing

Marketing is a high-stakes proposition in the pharmaceutical industry, with billions of dollars spent annually to promote new drugs. Is the spending effective?

Associate professor of marketing **Puneet Manchanda** has mined industry statistics to find out. **By Patricia Houlihan**

The pharmaceutical industry is driven by research and development, but the top firms spend two to three times as much on marketing as they do on R&D, according to Manchanda, who has made the industry the focus of several studies. Manchanda is drawn to the topic for several reasons. “What doctors and drug companies do has a direct bearing on our well-being,” he said. He’s also intrigued by the wealth of data that the federal government requires pharmaceutical firms to collect. “The richness of this industry allows us to answer questions that have not been answered

before and could not be answered in other industries. For example, marketing to physicians is like advertising to individuals—having your own TV with your own programming,” he said. “But does it really work? How do people learn through this kind of advertising? From policy impact, disciplinary, and research points of view, it’s a fascinating industry.”

Manchanda’s research has prompted phone calls from a wide range of interested professionals, from company CEOs and operating managers to research firms and consultants. Physicians, too, have been intrigued with his work, including a study that showed doctors develop relationships with pharmaceutical sales representatives over time. “Physicians respond to this relationship because they’re human beings, not computers,” Manchanda said. “When you raise this with MDs, they’re not really forthcoming.”

In the study “Temporal Differences in the Role of Marketing Communication in New Product Categories,” Manchanda looked at how marketing communication changes during the life cycle of a new product category. With **Pradeep Chintagunta**, Robert Law Professor of Marketing, and **Sridhar Narayanan, PhD '05**, he examined how often drug company

some point the advertising flips over. Initially, it comes out through information transfer. Then it becomes relationship marketing,” he said. “That explains why, later on in the product life cycle, they still need to keep showing up at the physician’s office—they want to keep this relationship going,” he said.

In subsequent work, Manchanda and Narayanan again focused on a new prescription drug category, this time looking at individual doctors and comparing the number of sales calls each received for a particular drug with the number of prescriptions each physician wrote for it. The study, called “Heterogeneous Learning and the Targeting of Marketing Communication for New Products,” concluded that each doctor becomes convinced of a new product’s quality at his or her own rate. “The informative effect is different for different physicians as they ‘learn’ at different rates about the new drug,” he said.

Individual Approach

Part of what draws Manchanda to the pharmaceutical industry is the chance to study the fundamental marketing practice of targeting—setting marketing policy for different

customers, each of whom can be treated like a unique entity. In the paper “Response Modeling with Nonrandom Marketing-Mix Variables,” Manchanda and coauthors Chintagunta and **Peter Rossi**, Joseph T. and Bernice S. Lewis Professor of Marketing and Statistics, gauged the effectiveness of sales calls. “What we discovered was that for about half the physicians, sales representatives are going after them just the right amount. For the

other half, they’re visited either too much or too little. I think that shows the industry is doing a pretty good job.”

But what if sales representatives were able put in exactly the right amount of effort with each physician? In the follow-up study, “Quantifying the Benefits of Individual Level Targeting in the Presence of Firm Strategic Behavior,” researchers compared the expense of targeting individual doctors with the cost of targeting groups of physicians who seem to share similar prescribing characteristics. Manchanda said, “We find about a 40 percent increase in revenue when we move from targeting groups of physicians to individual physicians. The

question is, what’s the cost of making this move? It could be very high—you may need to hire more and better quality sales people or do costly territory realignment. But if it costs less than the 40 percent gain, it may be worth looking into. Our study therefore allows us to provide the bounds on the value of targeting to individual physicians.”

Manchanda also has planned to study the merits of free prescription drug samples as part of the new University of Chicago Program in Pharmaceutical Policy (UCP³). Funded by a \$600,000 three-year grant from the Merck Company Foundation, the program brings together faculty from throughout the University of Chicago to research pharmaceutical policy. Among them are **Gary Becker**, University Professor of Economics and of Sociology; **Kevin Murphy**, George J. Stigler Distinguished Service Professor of Economics; and **Robert Topel**, Isidore Brown and Gladys J. Brown Professor in Urban and Labor Economics, as well as faculty at the University of Chicago Law School, Harris School of Public Policy Studies, and the Division of Biological Sciences.

Building relationships with other researchers, including physicians at the University of Chicago Hospitals, gives Manchanda an edge in conducting his own research, he said. “Building relationships with other departments can help me do the kinds of research that I could not do in the business school alone,” he said. “For example, getting access to physicians is hard, but now I know people in the medical school and we can survey physicians very quickly.”

Manchanda is happy to contribute to an ever-growing area of study. “My main focus is to keep the research stream alive and enable others to use methods or think in different ways,” he said. “I’d like to have real-world ramifications.” ■

ON THE WEB To read the studies or learn more about Manchanda’s research, visit gsbwww.uchicago.edu/news/gsbchicago/facultylinks.html.

More Research

Hot Topics Draw Manchanda



In more recent work, **Puneet Manchanda** continues to focus on analyzing consumer behavior in industries that have a large impact on society. He currently is investigating consumers’ gambling behavior and driving habits.

Manchanda, associate professor of marketing, is interested in determining why a quarter of the U.S. population gambles at casinos on a regular basis. “The casino companies argue that this is entertainment. You go to a Cubs baseball game with your family and spend \$200. You go to the casino, drop \$200, and you could actually win something. On the other hand, it may be that casino patrons are ‘addicted’ to gambling. With detailed individual level data on visitation and gambling behavior from a major casino chain, we hope to distinguish between entertainment and addiction and to determine the dominant driver of gambling behavior.”

With the auto insurance industry, Manchanda already has begun researching how drivers are affected by having a sensor installed in the car that tells the insurance company how they are driving. Even though participation is voluntary, he said, “One of the things I’m finding is that just putting the sensor in the car changes the driver’s behavior and claim history. You would think that over six months, people would forget the presence of the sensor and revert back to their regular driving behavior, but I find they don’t,” he said. “A simple intervention like this could turn out to be enormously beneficial for society. Also, these data have the potential to distinguish really ‘risky’ driving behaviors from not-so-risky ones.” —P.H.

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sales representatives called on doctors over a particular drug’s life cycle. As expected, the sales reps regularly visited doctors when the drug was first introduced to explain how it worked, when it should be prescribed, and when it should not. But researchers found the sales people continued to stop by just as often later in the product’s life cycle—well after physicians had learned all they needed to know about the drug.

Noting the transition from informative advertising to persuasive advertising, Manchanda realized the sales force was building relationships with physicians. “You can see at