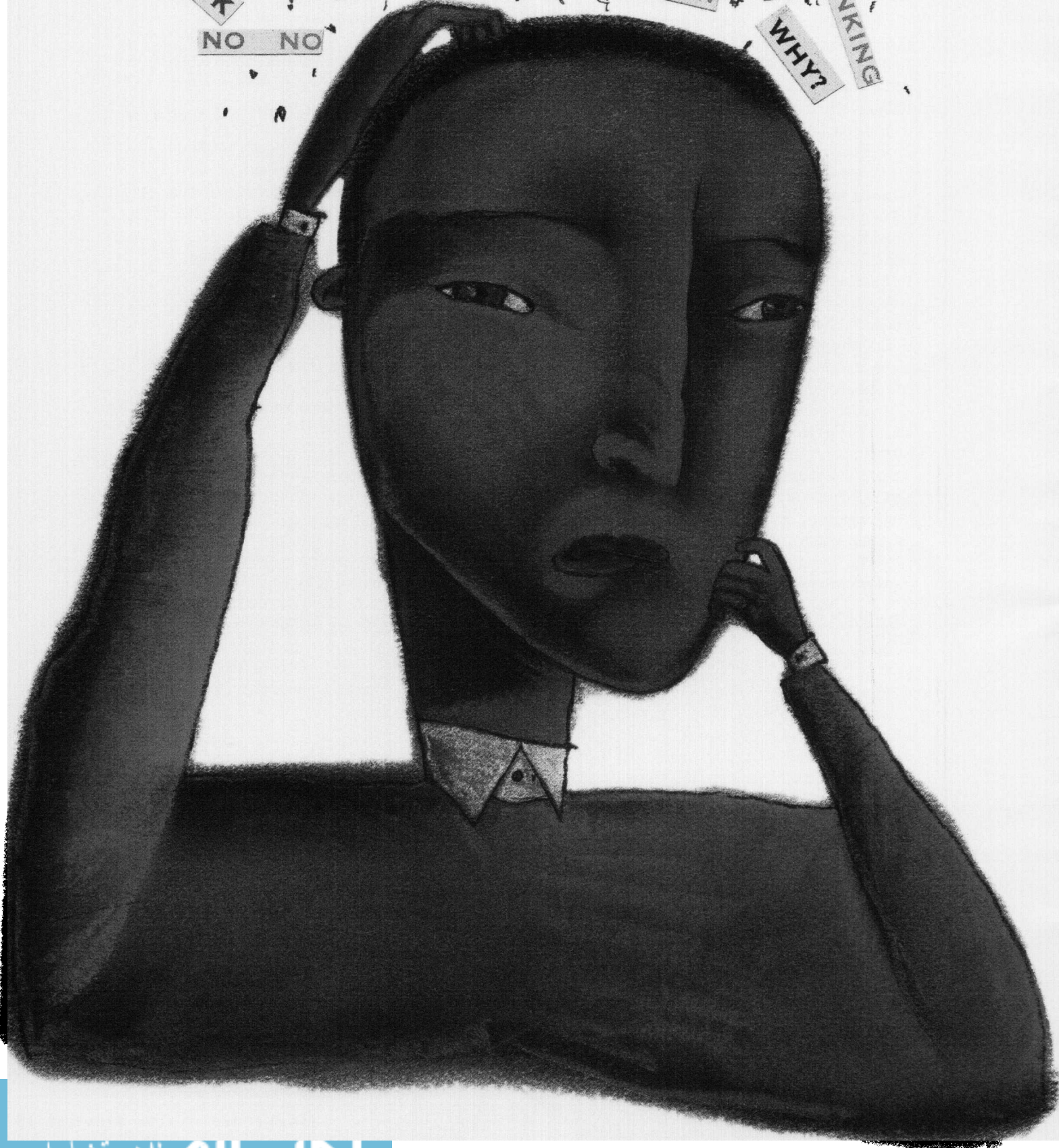


WHEN SHOULD I?
YES YES
MAYBE... WHICH ONE
ASK NO NO
MAYBE NOT
HOW MUCH?
WHERE?
NO THINKING
WHY?
!!!!!!!
?????



Marketing Decision Support Systems for Strategy Building

Shaping the dynamics of change in the marketing of products.

By Sanjay K. Rao

Brand teams charged with the commercialization of pharmaceutical products in the pipeline operate in an uncertain environment. In the time between establishing the “Proof of Concept” and the completion of Phase III clinical trials and FDA submission, the target market environment is likely to undergo substantive changes, such as:

- Increases in the size and composition of the potential patient stream.
- Changes in the positioning/pricing strategies of key competitive products.
- Mergers/Acquisitions leading to the restructuring of sales forces promoting competitive products.
- Changes in the competitive set of products, in that a new competitor may launch or an existing one may lose patent protection, causing generics to enter the product space.

In addition, the brand team needs to contend with key changes in the definition of

their product as well as new evidence that evolves from clinical trials. The process of assessing the value of such evidence is intrinsically tied to decisions about potential product strategy. For example:

- What is the best positioning platform given the new clinical evidence?
- What should be the price at launch and how should we manage it over the product’s life cycle?

EXECUTIVE HIGHLIGHTS

Brand teams charged with the commercialization of pharmaceutical products in the pipeline operate in an uncertain environment. Market, customer and competitive interrelationships undergo changes, often in ways that are unpredictable with conventional research practices. This article describes a framework whereby such uncertainty can be managed more effectively in the context of ongoing business needs.

- What are the best resource levels needed to support the new product in the light of evolving clinical, market, and business information?

A traditional brand team relies on the availability of reliable market-driven information to address these questions. A combination of marketing research projects is used to collect information from the market about the potential impact of impending or likely changes. Competitive intelligence is gathered through legitimate channels. Clinical data are systematical-

ly analyzed. Traditional marketing researchers conduct ad hoc and seemingly disparate research projects covering such areas as market size estimation, segmentation, forecasting, positioning, pricing, sales force targeting, and resource allocation.

However, recent thinking developed at ZS Associates suggests that the cause of the marketing function—and by extension, the franchise—is better served by taking a more “holistic” view. Such an approach focuses the energies of all relevant professionals on the development of an integrated Marketing Decision Support System (MDSS) for building strategy. The operating philosophy underlying such a system is that developing actionable strategy is best accomplished by identifying areas of uncertainties in the process by which a product is seen, thought of, marketed and evaluated, and explicitly measuring customer reactions to them (See Exhibit 1).

Such reactions are then examined for the best representation of the hypothesized processes and interrelationships among them. Inputs, outputs, and the processes that link them are stochastic; they are allowed to change within realistic boundaries, as well as with time. Most importantly, the system is set up for simulation—an almost infinite variety of input combinations representing product and marketing strategy, competitive reaction, and market evolution can be simulated and evaluated for feasibility in terms of aggregate effectiveness measures such as market share, revenue, and profitability over time.

Strategy development has always been a key marketing process in the pre-launch phase of a new product’s introduction. From cost- and demand-based methods to modeling the diffusion of analog brands and scaling individual preferences as part of modeling potential customer decisions, marketers have relied on a variety of econometric and psychometric approaches to address pricing. The MDSS based approach, however, recognizes that any strategic decision—such as set-

ting pricing policy—has to be seen in the context of other marketing forces with which it’s expected to interact, such as product strategy, advertising spending, sales force efforts, distribution, and availability (See Exhibit 2).

Further, underneath the MDSS is a deep-rooted recognition of the fact that strategy cannot ignore the realities of a marketplace that evolves with time. Market potential may ebb or swell, segments may become defunct or need to be redefined, and new competitors may come into play in the future with product and marketing strategies that would demand constant reevaluation of existing strategies.

The ability of a marketing research team to build a reliable MDSS that addresses such issues over time for providing realistic guidance to the brand team has been facilitated of late by the advanced development of a variety of relevant modeling methods and estimation techniques. One key characteristic of such methods is their ability to incorporate a large number of variations of potential inputs with little loss in the quality of output estimates. For example, discrete choice based hybrid conjoint experiments can be set up to measure preference/choice functions for an almost unlimited number of product and competitor descriptors. Systems of simultaneous equations representing the interrelated impact of marketing and sales force instruments on market acceptance metrics can be conveniently estimated using user-friendly software that provides considerable flexibility in the choice of hypotheses. In addition, the increasing realization among analysts and end-users of research that a given research methodology is only as good as the answers it provides has encouraged the search for linking results from one research effort to another.

As can be expected, developing such a system requires careful upstream planning and several interdependent skills. The marketer, marketing researcher, systems builder, and their teams need to set up system expectations, devise methods to realize them, design system interfaces, and identify ways to manage and update processes as the system becomes operational. Key issues that require careful thought relate to:

- The universe of realistic prices the product may bear.
- Key elements of the positioning platform.
- The set of realistic resource matrices that are likely to support our product as well as its competitors.
- The potential reaction of managed care organizations to the product and its clinical data.

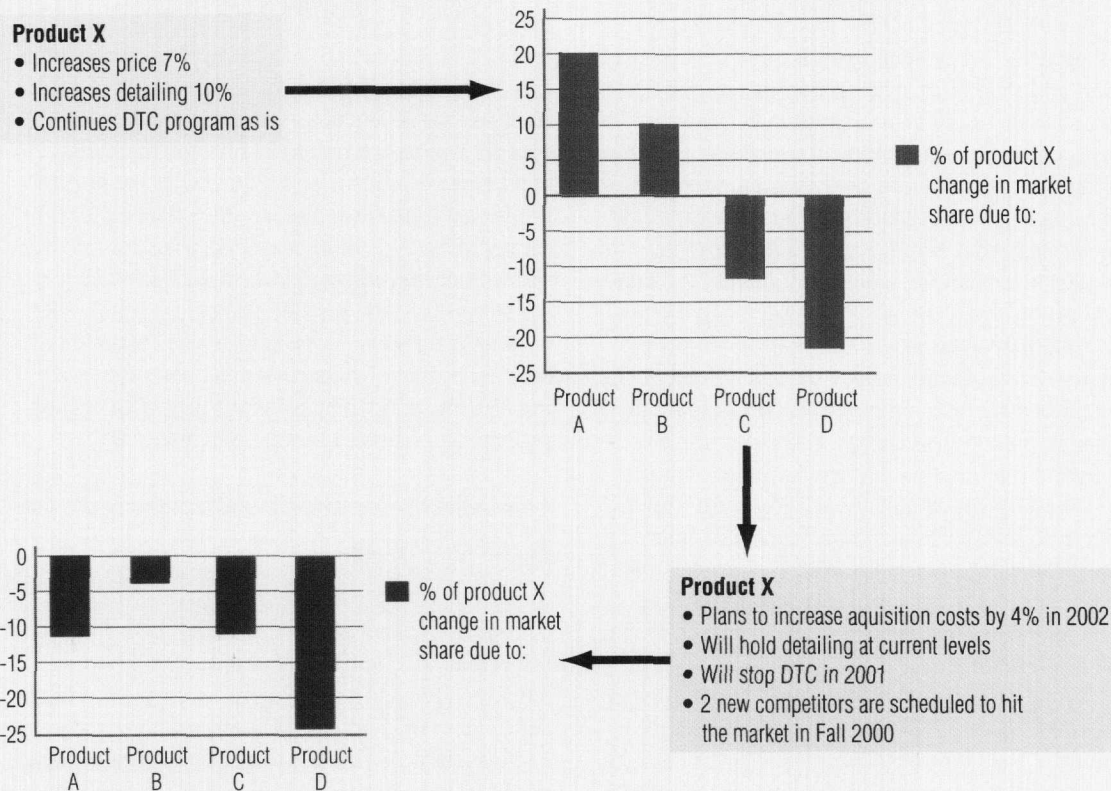
EXHIBIT 1

MDSS: Factors shaping the context



EXHIBIT 2

System outputs: Interaction between pricing and other marketing mix strategies



- Customer-focused descriptions of product strategy variables such as perceived benefits, prices at wholesale, retail, and co-pay.
- The identification of realistic ranges of expenditures and efforts related to marketing in the category.
- Reliable business intelligence about potential new entrants.

Other ancillary issues that need to be considered at this stage pertain to the flexibility of the system. These include user-friendliness, graphical content, logic of the inputs and outputs, the system's openness and its adaptability to updates in the future.

The system's CNS (Central Nervous System) is its standard bearer, the stamp of its quality and usefulness. It is also the playing field for the marketer and marketing researcher to utilize the most recent and valid methodologies and models in a variety of interrelated disciplines such as market diffusion, decision modeling, choice and dollar-metric functions, and market share estimation. The CNS consists of analytic processes that link raw data, estimates from customized and validated

models of potential behavior, key assumptions of market evolution, and elements that reflect a universe of potential competitive reactions. The marketer and the marketing researcher typically conduct a series of primary and secondary research projects with potential customers to develop a working framework for the CNS. Such projects might include:

- Conducting qualitative focus groups.
- Executing decision-modeling exercises such as choice based/dollar metric hybrid conjoint experiments that estimate segment behaviors and linkages.
- Building econometric models of response to marketing activity in the category and its analogs to estimate the potential effects of new product entries via historical analyses.
- Developing dynamic optimization models.
- Estimating diffusion models of product adoption.
- Conducting system simulations.

- Scoping the market and the management of the consideration set via focussed in-depth interviews and Delphi sessions.

A well-designed MDSS can help managers, researchers and systems groups alike both in the short and long term. The optimal positioning platform can be tested for maximal impact not only in terms of how much incremental revenue and share it could garner, but also how much more it could add synergistically, working together with a pricing strategy that emphasizes the nature of the positioning: for example, a premium, highly differentiated product in a category of many similar competitors. Key decisions about pricing points and their potential interactions with other elements of the marketing mix can be quantified over a universe of potential scenarios. Financial impacts of key marketing mix decisions can be readily reviewed for making near and long-term forecasts (See Exhibit 3). The potential impact of future new products can be estimated, both in the context of our brand's pricing and intended marketing mix, as well as the marketing dynamic supporting the new entrants.

Researchers can develop better methodologies using the system's capacity to provide longitudinal, time-based information of causes and effects. Key hypotheses about new product introductions can be modeled and tested. The system can be used to provide benchmarks for better design and marketing of other products. Updating the system with systematic, ongoing research and modeling of newer data can provide a solid basis for developing sound marketing strategies for managing the new product's life cycle over time.

MDSSs have been used to develop pricing strategy, examine the various marketing options available to approach managed care organizations for favorable formulary inclusion decisions, and assess the impact of a potential new competitor in the future. One key benefit of such systems is the architecture permits, even welcomes, a process of constant reevaluation and refreshing. As the product evolves from a concept to launch and thereafter, new research projects are defined with the system's needs as a frame of reference. New data collected for addressing evolving needs are used not only for short-term, immediate answers, but also to replenish the system, and provide strategic insights. The product is marketed not as much as a collection of benefits provided to its customers but more as a living, organic entity that has had a history of organizational and market focussed dynamics. ■

ABOUT THE AUTHOR

Sanjay K. Rao is manager of ZS Associates in Princeton, N.J. He has consulted on, analyzed, and managed strategic marketing research and consulting projects for Fortune 500 companies over the past 13 years. Recently he has focused his abilities exclusively on the pharmaceutical industry, consulting with top firms in the United States and Europe on strategic marketing design and execution projects. He holds a PhD in marketing from the Wharton School of the University of Pennsylvania and a Bachelor of Technology in Aeronautical Engineering from the Indian Institute of Technology.

EXHIBIT 3

System outputs: Cash flow statements

